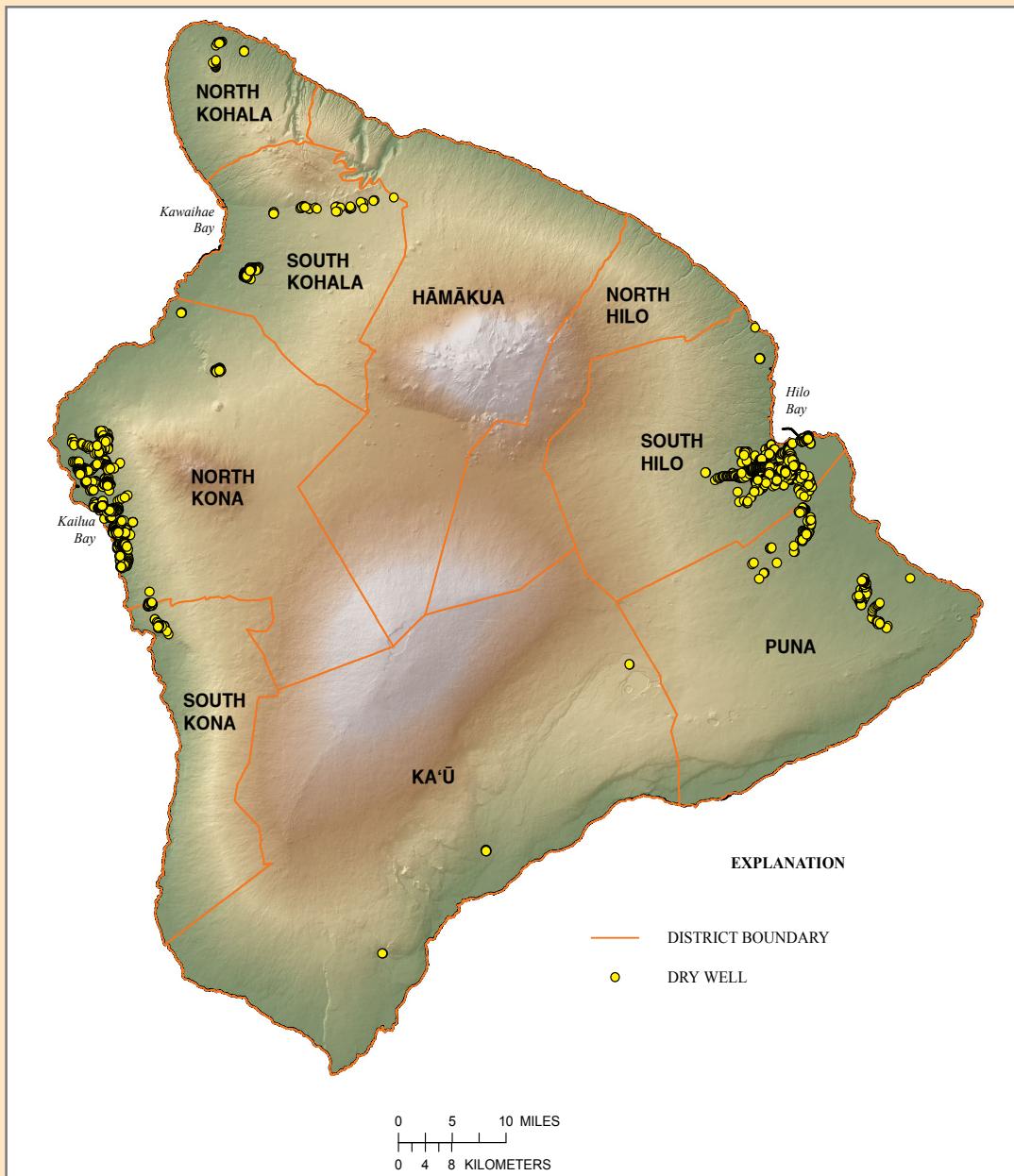


Prepared in cooperation with the County of Hawai‘i Department of Public Works

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai‘i



Scientific Investigations Report 2009-5249

COVER. Map showing dry wells of the County of Hawai'i Department of Public Works.

Prepared in cooperation with the County of Hawai‘i Department of Public Works

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai‘i

By Scot K. Izuka, Craig A. Senter, and Adam G. Johnson

Scientific Investigations Report 2009-5249

**U.S. Department of the Interior
U.S. Geological Survey**

U.S. Department of the Interior
KEN SALAZAR, Secretary

U.S. Geological Survey
Marcia K. McNutt, Director

U.S. Geological Survey, Reston, Virginia: 2009

This report and any updates to it are available online at:
<http://pubs.usgs.gov/sir/2009/5249/>

For more information on the USGS—the Federal source for science about the Earth, its natural and living resources, natural hazards, and the environment, visit <http://www.usgs.gov> or call 1-888-ASK-USGS

For an overview of USGS information products, including maps, imagery, and publications, visit <http://www.usgs.gov/pubprod>

Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Although this report is in the public domain, permission must be secured from the individual copyright owners to reproduce any copyrighted materials contained within this report.

Suggested citation:
Izuka, S.K., Senter, C.A., and Johnson, A.G., 2009, Reconnaissance assessment of the potential for roadside dry wells to affect water quality on the Island of Hawai‘i: U.S. Geological Survey Scientific Investigations Report 2009–5249, 55 p.

Contents

Abstract -----	1
Introduction -----	1
Acknowledgments -----	3
Setting -----	3
Geology -----	3
Hydrology -----	5
Dry Wells on the Island of Hawai'i -----	7
Assessing the Potential Effects of Dry Wells on Water Quality -----	7
Source of Data -----	7
Methods -----	8
Results and Discussion -----	10
Urbanization and Distance to Water Table -----	10
Proximity to Receiving Waters -----	10
Limitations -----	13
Possible Approaches to Advancing Understanding of the Effect of Dry Wells on Quality of Receiving Waters -----	13
Summary and Conclusions -----	18
References Cited -----	19
Appendix. County of Hawai'i Department of Public Works Dry Wells -----	21

Figures

1. Map of County of Hawai'i Department of Public Works dry wells -----	2
2. Map of major geographic features and rainfall distribution on the island of Hawai'i -----	4
3. Diagram of hydrologic cycle and conceptual model of groundwater occurrence in tropical islands -----	6
4. Cross section through the western coast of the island of Hawai'i showing relation between groundwater and coastal surface-water bodies-----	6
5. Sketch of a typical dry well operated by the County of Hawai'i Department of Public Works-----	7
6. Diagram of area contributing recharge to a well -----	9
7. Map of County of Hawai'i Department of Public Works dry wells having high-intensity development within their drainage areas -----	11
8. Maps showing County of Hawai'i Department of Public Works dry wells penetrating to within 10 feet of the water table -----	12
9. Maps showing County of Hawai'i Department of Public Works dry wells within 0.5 mile of the coast-----	15
10. Maps showing County of Hawai'i Department of Public Works dry wells within the areas contributing recharge to drinking-water wells -----	16

Tables

1. Summary of characteristics of dry wells of the County of Hawai'i Department of Public Works-----	10
2. County of Hawai'i Department of Public Works dry wells that are within 0.5 mile of the coast, penetrate within 10 feet of water table, and have high-intensity development in drainage area-----	14
3. County of Hawai'i Department of Public Works dry wells that are within the area contributing recharge to a drinking-water well, and have high-intensity development in drainage area-----	17

Conversion Factors

Multiply	By	To obtain
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
square mile (mi^2)	2.590	square kilometer (km^2)
inch per year (in/yr)	25.4	millimeter per year (mm/yr)

Horizontal coordinate information is referenced to the World Geodetic System of 1984 (WGS84).

Elevation refers to distance above mean sea level.

This page intentionally left blank

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai‘i

By Scot K. Izuka, Craig A. Senter, and Adam G. Johnson

Abstract

The County of Hawai‘i Department of Public Works (DPW) uses dry wells to dispose of stormwater runoff from roads. Recently, concern has been raised that water entering the dry wells may transport contaminants to groundwater and affect the quality of receiving waters. The DPW operates 2,052 dry wells. Compiling an inventory of these dry wells and sorting it on the basis of presence or absence of urbanization in the drainage area, distance between the bottom of the dry well and the water table, and proximity to receiving waters helps identify the dry wells having greatest potential to affect the quality of receiving waters so that future studies or mitigation efforts can focus on a smaller number of dry wells. The drainage areas of some DPW dry wells encompass urbanized areas, which could be a source of contaminants. Some dry wells penetrate close to or through the water table, eliminating or substantially reducing opportunities for contaminant attenuation between the ground surface and water table. Dry wells that have drainage areas that encompass urbanization, penetrate to near the water table, and are near the coast have the highest potential to affect the quality of coastal waters (this study did not consider specific sections of coastline that may be of greater concern than others). Some DPW dry wells, including a few that have drainage areas that encompass urbanization, lie within the areas contributing recharge (ACR) to drinking-water wells. Numerical groundwater modeling studies by previous investigators indicate that water infiltrating those dry wells could eventually be pumped at drinking-water wells.

Dry wells that have a high potential for affecting coastal receiving waters or drinking-water wells can be the focus of studies to further understand the effect of the dry wells on the quality of receiving waters. Possible study approaches include sampling for contaminants at the dry well and receiving water, injecting and monitoring the movement of tracers, and numerical modeling. To fully assess whether dry wells actually pose a significant contamination threat to receiving waters, results from modeling or monitoring must be compared to limits for contaminant concentration at receiving

waters. These limits are usually established by the agencies tasked with protecting those waters.

Introduction

The use of dry wells to dispose of stormwater runoff from roads and urbanized areas on both public and private land on the Island of Hawai‘i is widespread (fig. 1). Some of the water that flows into the dry wells comes from runoff that would otherwise have flowed to the ocean through surface-drainage systems. Dry wells reroute this water from the surface system to the groundwater flow system. Most of the water still ultimately flows to the ocean, but it is subject to processes in the groundwater system and in most cases will discharge in a different location in the ocean than it would have if it remained in the surface system. Dry wells also receive some water that would otherwise have infiltrated the ground over a broad area and inject this water at point locations. Because dry wells are excavations through surface soil and into the underlying rock, they allow water to bypass the natural filtering properties of surface soil and vegetation and shorten the distance through which infiltrating water must percolate before reaching the water table. The water table is the top of the saturated aquifer; thus, any water or contaminants that reach the water table become part of the saturated groundwater system.

Recently, concern has been raised that storm runoff entering the dry wells may transport contaminants from roads and adjacent urbanized areas to groundwater and affect drinking-water sources and coastal ecological systems that are dependent on groundwater (Hawai‘i State Land Use Commission, 2002). Some developers of new residential areas have taken steps to address these concerns, such as incorporating filters in their dry-well designs. The County of Hawai‘i Department of Public Works (DPW), however, has thousands of dry wells already in use; retrofitting them with filters constitutes a potentially large demand on time and operational resources. Before embarking on such a large task, the DPW

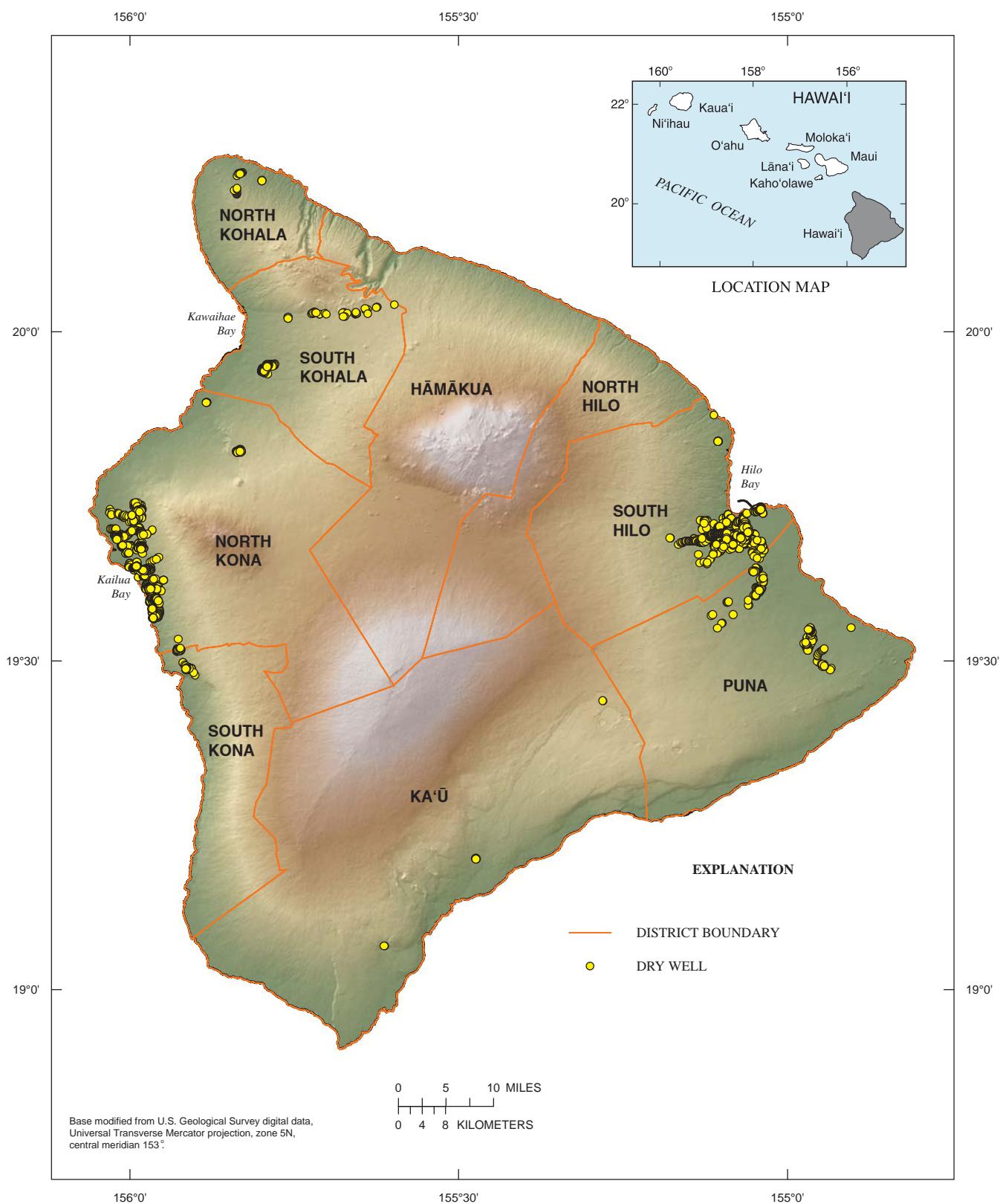


Figure 1. Map of County of Hawai‘i Department of Public Works dry wells. (District boundaries from Hawai‘i State Department of Business, Economic Development and Tourism, 2008.)

wants to assess whether the dry wells actually pose a significant contamination threat to sensitive receiving waters.

This report describes the results of a reconnaissance assessment of the potential effects of roadside dry wells on the quality of receiving waters on the Island of Hawai‘i. The objective is to identify dry wells that have the highest potential for affecting the quality of receiving waters such as coastal marine environments and drinking-water wells. Results of the assessment can be used to focus future studies and mitigation efforts. The assessment is limited to dry wells maintained by the County of Hawai‘i DPW. The assessment includes compilation of an inventory of all DPW dry wells and their locations and characteristics, and analysis of the inventory with geospatial information on topography, hydrography, urbanization, drinking-water wells, and groundwater levels to determine the (1) presence or absence of urbanization within the dry-well drainage areas, (2) distance between the bottom of the dry wells and the water table, and (3) location of the dry wells with respect to coastal receiving waters and drinking-water wells.

Acknowledgments

This study was funded by a cooperative agreement between the U.S. Geological Survey (USGS) and the County of Hawai‘i DPW, Mr. Warren W.H. Lee, Director. The authors are grateful to Mr. Galen Kuba, Engineering Division Head at the DPW, for his cooperation and assistance. The distribution of water-table elevations and areas contributing recharge to drinking-water wells for the Island of Hawai‘i was originally prepared for the Hawai‘i State Department of Health; Robert Whittier (University of Hawai‘i) provided the analysis of dry-well locations relative to areas contributing recharge to drinking-water wells. Alan Rea (USGS) provided critical assistance with drainage-area analysis. Stephen B. Gingerich and Kimberly Beisner of the USGS assisted in the completion of this study and report.

Setting

Hawai‘i is the largest ($4,030 \text{ mi}^2$) island in the tropical North Pacific Hawaiian Archipelago. The island is formed by five large basaltic shield volcanoes: Kohala, Hualālai, Mauna Kea, Mauna Loa, and Kīlauea (fig. 2). Rainfall on the Island of Hawai‘i is influenced by the prevailing northeasterly trade winds and sea breezes generated by diurnal heating and cooling of the large island mass. Precipitation is induced when the trade winds and sea breezes rise and cool as they encounter the shield volcanoes. Rainfall on the windward slopes of the island can exceed 260 in/yr, but on the leeward western coast precipitation is low and evaporation is high because of the orographic rain-shadowing effect of the large mountains. The

orographic rainfall is limited by the presence of the trade-wind inversion at about 2,500 feet; therefore the highest elevations on the interior of the island—particularly the tops of Mauna Kea and Mauna Loa—are arid (Giambelluca and others, 1986).

Stream erosion is not as advanced on the relatively young island of Hawai‘i as it is on the older islands in the archipelago, although deep valleys have been eroded into the north-eastern slope of Kohala. Numerous streams have dissected youthful gulches in the slopes of the wet windward-facing slope of Mauna Kea and the southeast slope of Mauna Loa. Stream erosion is less distinct on the drier areas, such as the leeward west side of the island and the arid peaks of Mauna Loa and Mauna Kea. Stream dissection is also less apparent on Kīlauea and most of Mauna Loa, where erosion competes with the formation of new lava terrain from these active volcanoes.

Geology

The geology of the Island of Hawai‘i has been the subject of many studies since the late 19th century. The following discussion is largely derived from descriptions in Stearns and Macdonald (1946), Macdonald and others (1983), Peterson and Moore (1987), and Sherrod and others (2008), with specific concepts from other references as cited.

Hawai‘i is geologically the youngest island in the Hawaiian Archipelago. Radiometric dating indicates that the entire surface of the island is less than 1 million years old. The five large shield volcanoes that built the island are the result of basaltic mid-oceanic, hot-spot volcanism. Each volcano was formed at least partly contemporaneously with the ones before and after it, therefore ages of the volcanoes overlap with each other. On the basis of time since latest eruptive activity, Kohala is the oldest volcano, followed by Mauna Kea. Hualālai last erupted in 1881, Mauna Loa erupted as recently as 1984, and Kīlauea is erupting currently (U.S. Geological Survey, 2009).

Four stages are currently recognized in the life of volcanoes in the Hawaiian Archipelago: preshield, shield, postshield, and rejuvenated. Rocks of the preshield stage are primarily submarine and do not form a large volume of the shield volcano. Rocks of the rejuvenated stage do not occur on the Island of Hawai‘i. Ninety percent or more of the subaerial portion of each volcano is built during the shield stage (Clague and Dalrymple, 1987). Mauna Loa and Kīlauea are currently in this stage. During the shield stage, highly fluid basaltic lava is erupted at the summit of the volcano, which, in the case of Mauna Loa and Kīlauea, is occupied by a caldera. Highly fluid lava is also erupted from rift zones, which are linear concentrations of eruptive sites that radiate from the summit (fig. 2). Owing to its fluidity and the sloped flanks of the shield volcano, the lava can flow for several miles before congealing, and tends to form elongate, narrow tongues that are generally only a

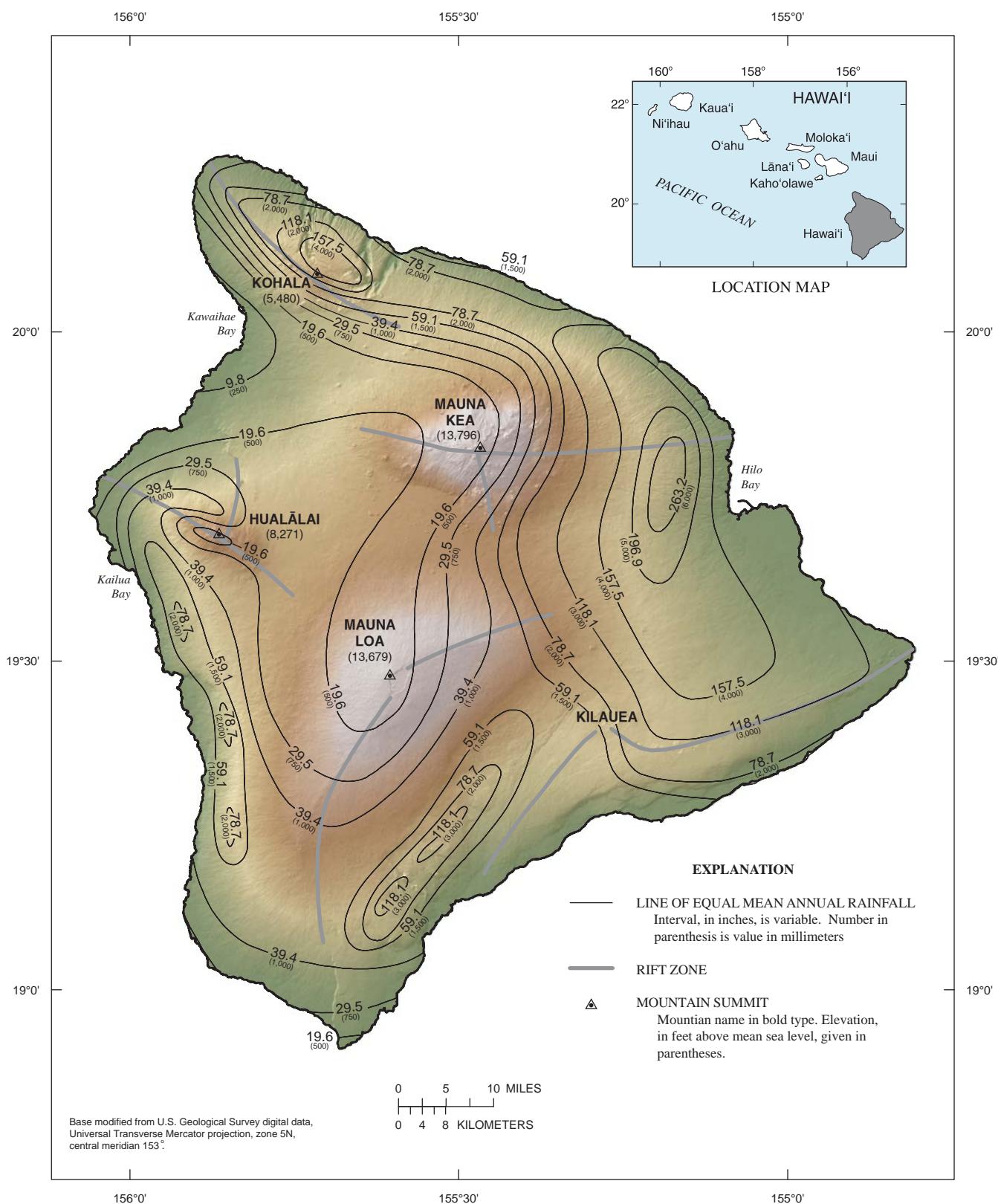


Figure 2. Map of major geographic features and rainfall distribution on the island of Hawai'i. (Rainfall distribution from Giambellucca and others, 1986; rift zones from Peterson and Moore, 1987.)

few feet thick. The bulk of the shield volcano is thus a pile of thousands of thin lava flows. Eruptions during the shield stage are fed by dikes, which are fissures through which magma rises from its deep source. Some of the magma in the dikes congeals before reaching the surface and forms dense, near-vertical sheets of rock (also known as dikes) that cut across the pile of lava flows. The highest concentrations of dikes are beneath the summit and rift zones.

Kohala, Mauna Kea, and Hualālai have passed into the postshield stage. The transition from shield to postshield stage is sometimes not distinct, but it is marked by a gradual shift to lower eruptive volume and frequency, higher alkali content, and lava with higher viscosity. The lava flows of this stage are shorter and thicker, and pyroclastic cones are more common. As a result, the postshield stage generally forms a cap having a steeper slope than the shield-stage lava flows.

Faults occur in various settings on shield volcanoes. The caldera at the summit of the shield volcanoes is bounded by faults. Faults may also cut across the flanks of shield volcanoes (tangential faults) or form elongate depressions (graben). Faults and other structures that form while the volcano is active may be buried by subsequent lava flows.

Weathering and soil development are shallower and less extensive on the island of Hawai‘i than on the older islands in the archipelago. Indeed, much of the land surface is bare rock, particularly on active parts of volcanoes and where the climate is particularly arid (Sato and others, 1973). Sedimentary-rock formations are also rare on the Island of Hawai‘i compared to the older islands in the archipelago.

Hydrology

General Hydrologic Concepts for Oceanic Islands.—The ultimate source of freshwater in oceanic islands is precipitation, which includes rain, snow, and fog. Water from precipitation can run off the land surface to the ocean through streams, recharge groundwater, or return to the atmosphere through evapotranspiration (evaporation and transpiration by plants) (fig. 3). Water that recharges groundwater passes downward through unsaturated rock until it reaches the saturated part of the aquifer. In oceanic islands, freshwater in the saturated part of the aquifer forms a lens-shaped body underlain by saltwater from the ocean. Between the freshwater lens and the underlying saltwater is a zone of mixing containing brackish water. In the natural state, the overall thickness of the freshwater lens depends on the aquifer hydraulic conductivity and rate of groundwater recharge—freshwater lenses are thinner where the hydraulic conductivity is high or groundwater recharge rates are low.

Freshwater in the lens flows naturally from inland areas, where most recharge occurs, to coastal areas, where groundwater discharges to springs, streams, and the ocean. Wells that pump water from the aquifer intercept some of the natural groundwater flow. In some areas, including coastal areas,

depressions in the land surface expose the water table (top of the saturated part of the aquifer) (fig. 4). The exposed water table can take the form of wetlands, lakes, ponds, springs, or persistently flowing streams. Some of these water bodies provide habitats for organisms.

Groundwater flow departs from this general conceptual model where low-permeability structures such as dikes, lava-draped faults, ash layers, or dense lava flows intrude into or are buried within the otherwise high-permeability lava-flow aquifer. Vertically oriented low-permeability structures such as dikes and faults impede the horizontal flow of groundwater, thereby causing groundwater to accumulate to high levels on the up-flow side of these structures. Horizontally oriented low-permeability structures, such as buried soil or ash horizons, impede the vertical flow of groundwater and may cause the formation of small saturated groundwater bodies perched within the unsaturated zone.

Contaminants reaching the water table beneath inland areas can be transported by groundwater flow to receiving waters at the coast. Wells that intercept some of the natural groundwater flow may intercept contaminants carried in the groundwater. Whether the contaminants present a threat to receiving waters or wells depends on the physical, chemical, and biological processes within the aquifer. These processes include dilution, sorption, and degradation, which generally tend to attenuate the contaminant the longer it travels through the aquifer.

Hydrology of the Island of Hawai‘i.—The high primary porosity and lack of weathering in the youthful, voluminous lava flows erupted during the shield stage on the island of Hawai‘i provide an aquifer that has relatively high permeability, particularly in the dike-free flanks that slope away from the summit and rift zones. For example, estimates of the hydraulic conductivity (a measure of permeability) for flank lava flows on the west side of the island of Hawai‘i are as high as several thousand feet per day (Oki, 1999). Because the shield stage builds most of the subaerial volume of the shield volcanoes that make up the island of Hawai‘i, this high-permeability aquifer is volumetrically the primary aquifer on the island. The freshwater lens is thin in most areas owing to this high-permeability aquifer. The water table is near sea level at the coast and rises gently a few feet per mile in the inland direction (Stearns and Macdonald, 1946).

Dikes that intrude the lava flows impede the flow of groundwater and reduce the overall permeability of the aquifer. Dikes are often concentrated in complexes beneath the summit and in linear trends beneath the rift zones of the shield volcano (fig. 2). Dikes are more abundant in the center of the dike complexes, and less abundant at the margins (Takasaki and Mink, 1985). Estimates of the bulk hydraulic conductivity of dike complexes can be several orders of magnitude lower than that of dike-free flank lavas (Hunt, 1996; Oki, 1999). Some other rocks and structures, such as ash layers, soil and weathered rock, unusually thick lava flows, and lava-draped faults, may also form low-permeability features within the oth-

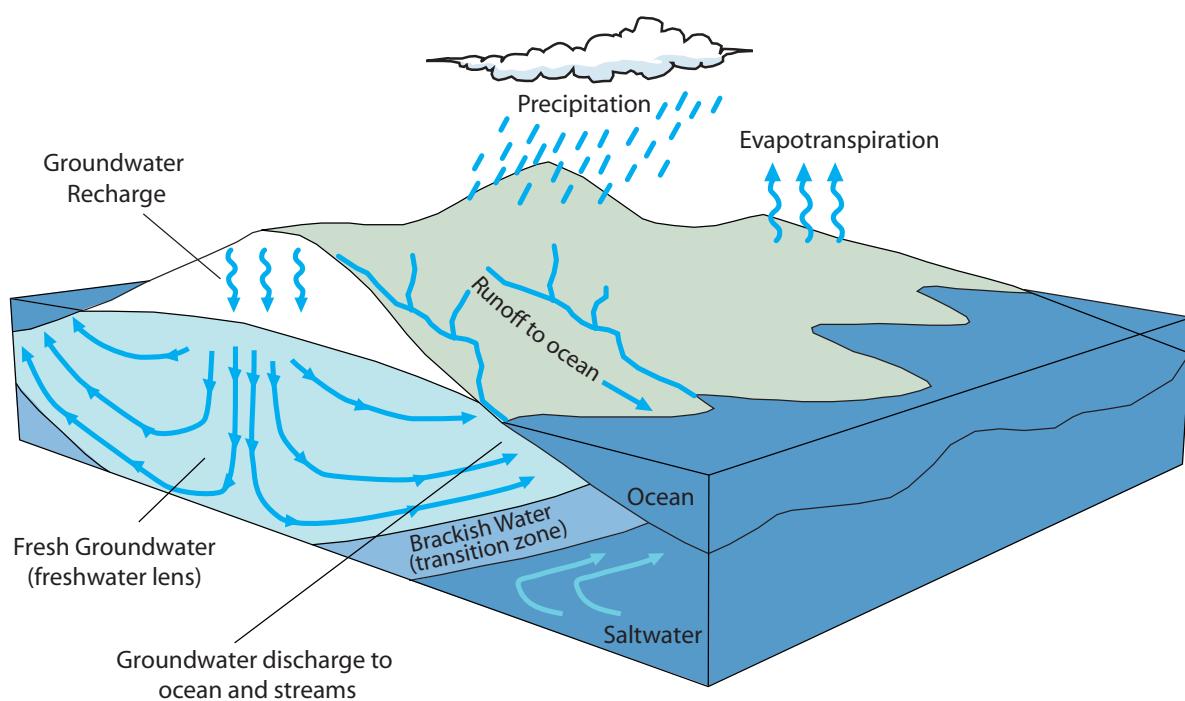


Figure 3. Diagram of hydrologic cycle and conceptual model of groundwater occurrence in tropical islands.

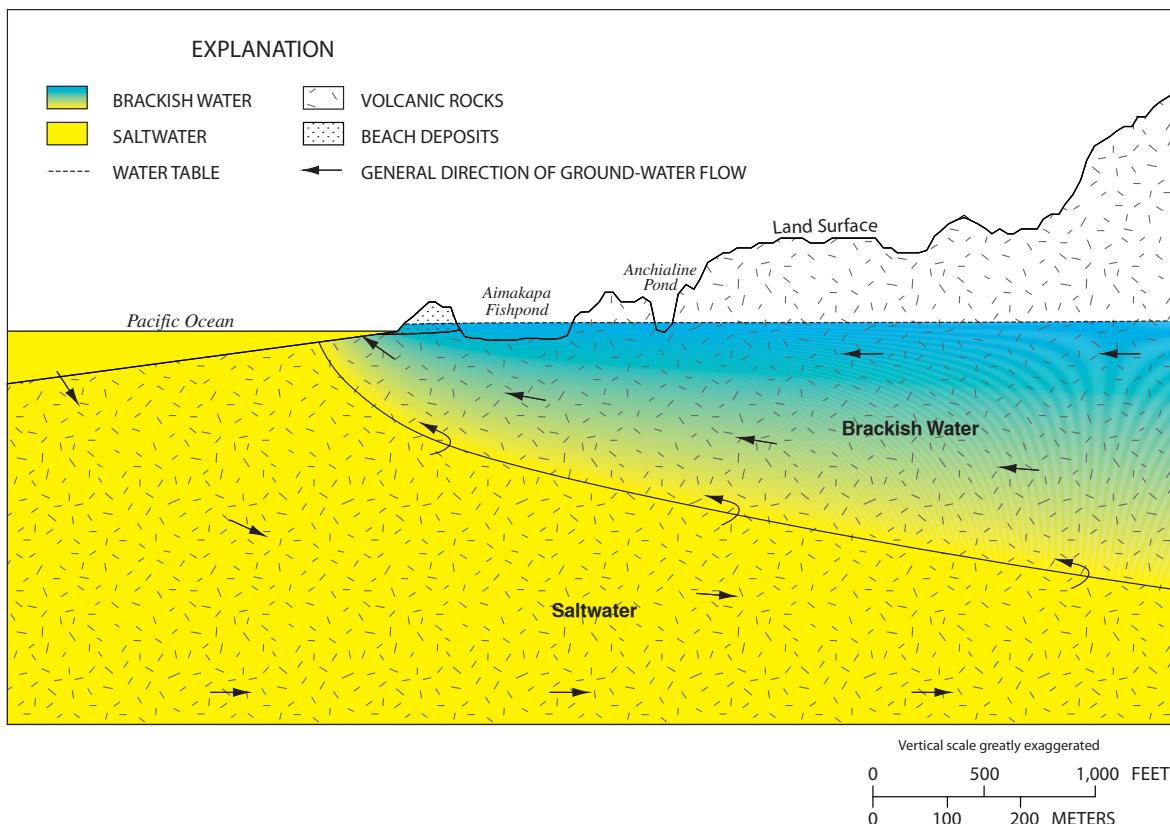


Figure 4. Cross section through the western coast of the island of Hawai‘i showing relation between groundwater and coastal surface-water bodies (from Oki and others, 1999).

erwise high-permeability lava-flow pile of the shield volcano (Stearns and Macdonald, 1946; Oki, 1999).

Few dikes are exposed at the surface on the island of Hawai‘i, but their presence can be inferred from the distribution of eruptive vents. Dike complexes are likely to exist beneath the summit and rift zones in all of the shield volcanoes that form the island (fig. 2). Some studies of groundwater resources on the island of Hawai‘i have conceptualized dike complexes as no-flow boundaries in numerical groundwater models (for example, Underwood and others, 1995; Oki, 2002), whereas others have incorporated dikes or similar low-permeability structures within models to simulate high-level groundwater bodies that were encountered in some wells (Oki, 1999; Oki and others, 1999; Whittier and others, 2004).

Dry Wells on the Island of Hawai‘i

The U.S. Environmental Protection Agency (1999) listed Hawai‘i among 12 states having the highest number of stormwater dry wells in the Nation; most of the dry wells in the state are on the Island of Hawai‘i. The highest concentrations of dry wells on the Island of Hawai‘i are in the urbanized areas in the South Hilo District on the east coast and the North Kona District on the west coast (fig. 1). The DPW uses dry wells for stormwater disposal in rural and urbanized areas. Most DPW dry wells are excavations of about 5 feet in diameter into the porous basalt lava flows of the island (fig. 5). The average DPW dry well is 22 feet deep; 90 percent are between 10 and 30 feet deep. The dry wells may be connected to other surface intakes or grouped in roadside swales.

Dry wells are considered injection wells and are therefore subject to the Federal underground injection control (UIC) programs under the authority of the Safe Drinking Water Act (U.S. Environmental Protection Agency 1999, 2007). The UIC program primarily protects drinking water, however, and does not specifically address protection of nearshore environments. The UIC program currently (2009) does not require filters for roadside dry wells. Existing DPW dry wells include some that are in the vicinity of drinking-water wells or near coastal or other receiving waters. Many dry wells are also inland of the Hawai‘i State Department of Health’s UIC line (Hawai‘i State Department of Health, 2006), which separates areas of the aquifer that are tapped by drinking-water wells (landward of the line), from those that are not (seaward of the line).

Assessing the Potential Effects of Dry Wells on Water Quality

Surface-water flow and groundwater infiltration can mobilize and transport contaminants to other locations or into the ground, whether or not dry wells are present. Dry wells can, however, alter flow such that contaminants are directed to

waters that would not have received them under normal conditions. Dry wells can also enhance contaminant transport to and through groundwater by focusing infiltration at point locations, shortening the distance from the surface to the water table, or removing the sorption and filtering of natural infiltration through soil. This study examines aspects of dry wells that bear on their potential to affect the quality of receiving waters.

Source of Data

The analyses in this study are predicated on accurate, reliable data. An inventory of information on dry wells for this study was compiled from UIC permit paper files of the County of Hawai‘i DPW. Information in the UIC permit files ranged from permit applications with no locality information or indication whether the dry well was built, to more extensive information, such as preconstruction plans and as-built drawings with surveyed ground elevations and finished dry-well dimensions. For this study, the principal information for all dry wells extracted from the paper files were (1) UIC permit number and name, (2) geographic coordinates, (3) ground elevation, and (4) depth.

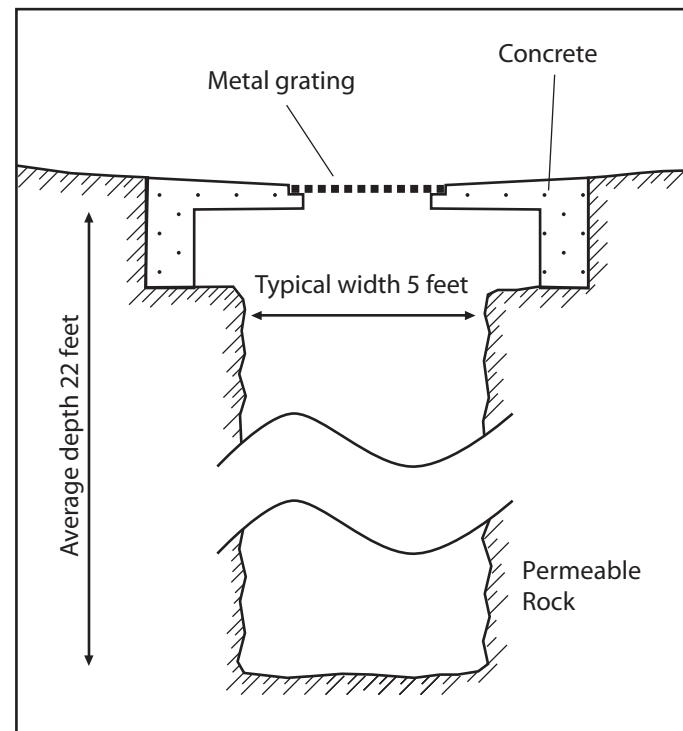


Figure 5. Sketch of a typical dry well operated by the County of Hawai‘i Department of Public Works.

UIC Permit Number and Name.—Most of the file folders were organized by the State Department of Health’s UIC permit number. The files were labeled with the UIC permit number followed by a brief descriptive name. In most cases, a single UIC permit number included several dry wells which may or may not have been identified with individual numbers or letters. For this study, it was necessary to identify each dry well uniquely. Whereas not all the folders had UIC permit numbers and not all dry wells in a given permit were individually identified, a system of unique numbers was developed in this study. This number is called the “inventory number” in this report.

Inventory numbers in the range 1 to 2,181 were assigned sequentially during initial data entry, but not all numbers in the sequence are used in the final inventory table. Some dry wells appeared in more than one UIC permit folder, which resulted in duplicate listings in the initial inventory compilation. These duplicate listings and their associated inventory numbers were removed from the final inventory.

Geographic Coordinates.—The analyses in this study require geographic coordinates for all dry wells. Although some of the paper dry-well files contained geographic coordinates, invariably only one latitude and one longitude was reported, even if the file contained information on a group of dry wells. To meet the needs of this study, geographic coordinates for all but a few dry wells were determined by matching site maps in the paper file folders with georeferenced satellite imagery and topographic maps in Google Earth™. All geographic coordinates used in this study are referenced to the World Geodetic Survey Datum of 1984 (WGS84). Accuracy of the coordinates obtained using this method varies depending on the clarity of the site maps and the ability to recognize roads and other reference structures on the satellite imagery. In most cases, however, the location error is likely to be less than 100 feet.

The geographic coordinates reported in the UIC permit files were used for some dry wells because no site map was given. In these cases, if the file folder contained multiple dry wells, all dry wells in the folder were assigned the same coordinates. In the file folders, the Old Hawaiian geographic reference datum was specified for some of the coordinates; these were converted to WGS84 for the inventory. If no datum was specified for the coordinates, the Old Hawaiian datum was assumed, and the coordinates were converted to WGS84 for the inventory. Uncertainty in the accuracy of the coordinates obtained using these methods is more than 100 feet.

Ground Elevation.—Ground-surface elevation, relative to mean sea level, was reported in some of the paper files. Information in the paper files indicate that some elevations were accurately surveyed, whereas others are reported as approximations. To ensure consistency for all ground-surface elevations used in this study, the reported elevations were compared to elevations derived from a 10-m digital elevation model (DEM) for the Island of Hawai‘i (U.S. Geological Survey, 2003). If the reported elevation was within 40 ft of the DEM,

the reported elevation was used in the inventory. If no elevation was reported or the reported elevation differed from the DEM by more than 40 ft, the DEM elevation was used. Elevations in the inventory are therefore at least accurate to within 40 feet; the few that were surveyed are likely to be even more accurate.

Depth of Dry Wells.—A depth for the dry wells was reported in most of the UIC permit files, but the reliability of the reported value varied. In some cases, a postconstruction depth was provided, such as an as-built diagram, geologist’s report, or maintenance-inspection report. These values were considered to be the most reliable and were used in the inventory and analysis when available. Even so, these values have some uncertainty, because some wells were reported to be partially filled with sediment at the time of inspection. In some cases, only a preconstruction depth was given, such as on a permit application; these depths were used in the inventory and analysis only if a postconstruction depth was not available. If no depth was reported in the UIC permit files, a code of NA for “not available” was entered in the inventory (appendix) and a depth of 20 ft, equal to the construction standard (Departments of Public Works of the State of Hawai‘i, 1984), was used in the analysis.

Methods

The potential that a dry well has to affect the quality of receiving waters depends on the availability and dilution of contaminants within the drainage area of the dry well and whether the dry well significantly alters the movement of water in such a way as to provide a more direct transport route between contamination sources and receiving waters. To assess this potential, this study determined the drainage area of each DPW dry well, then examined each dry well on the basis of four criteria: (1) degree of urbanization in the drainage area, (2) vertical distance between the bottom of the dry well and the water table, (3) location relative to coastal water bodies, and (4) location relative to drinking-water wells.

Urbanization in the Drainage Area of Dry Wells.—In this study, the drainage areas of all the dry wells were determined using the watershed-delineation tools in the geographic information system (GIS). Input to the GIS watershed tool included the locations of the DPW dry wells and a 10-m DEM of the island of Hawai‘i (U.S. Geological Survey, 2003). The GIS watershed tool synthesized a surface-flow grid from the DEM using a 50-cell threshold and computed drainage basins for the dry wells by tracing the area contributing flow to the dry-well location (for a conceptual description of the watershed-delineation GIS tool, the reader is referred to Madiment, 2002).

The degree of urbanization in the drainage area is used as an indicator of the availability of contaminants to DPW dry wells. Although most dry wells are in areas of anthropogenic development, the degree of development can vary. Some dry

wells may receive water from areas where roads, buildings, and other typical urban structures cover a substantial fraction of the area, whereas other dry wells may drain areas that are mostly covered with grass, trees, or other pervious surfaces. Land-cover maps from the National Oceanic and Atmospheric Administration (NOAA), based on remote-sensing satellite imagery, classify urban areas into “high-intensity developed” (land cover with greater than 75 percent impervious surface) and “low-intensity developed” (greater than 25 percent and less than 75 percent impervious surface) (National Oceanic and Atmospheric Administration, 2001). For this study, urbanized areas are defined as those having high-intensity development according to the NOAA analysis. The GIS was used to combine the dry-well drainage-area outlines and the 2001 NOAA land-cover map for the Island of Hawai‘i and determine which dry-well drainage areas encompassed high-intensity developed areas. Dry wells with drainage areas that encompass high-intensity development are considered to have a greater potential for delivering contaminants, because impervious surfaces such as roads and buildings are more likely to have activities that generate contaminants, such as industry, automobile traffic, and storage and transportation of hazardous materials.

Because the watershed-delineation tool is based on the DEM, it does not take into consideration small topographic modifications resulting from urban development. Thus, there may be some discrepancy between the GIS-generated drainage area and the drainage area that the dry well was designed to serve. In this study, urbanization in the drainage areas of dry wells is expressed only in presence/absence terms, rather than as a percentage of the drainage area. Errors in the watershed delineation have a smaller effect on the presence/absence classification than they would on a percentage calculation. The approach is conservative because a dry well will be identified as having high-intensity development if even a small portion of its drainage basin is covered by high-intensity development.

Distance to Water Table.—Because dry wells are excavations, they shorten the distance between the ground surface and the water table, thereby reducing the opportunity for natural attenuation of water-borne contamination as the water passes through the unsaturated zone. If a dry well penetrates to or through the water table, it provides a direct connection between surface contaminants and groundwater. In this study, the GIS was used to compute the distance between the bottom of a dry well and the water table. The water-table elevations used in this computation are from numerical modeling results of Whittier and others (2004). The elevation of the bottom of each dry well was determined by subtracting the dry-well depth from the ground-surface elevation.

Location Relative to Coastal Water Bodies.—Most groundwater on islands eventually flows to the ocean, either directly through coastal discharge or discharge to streams that eventually flow into the ocean (the exception is groundwater pumped from wells, which is discussed in the next section). By directing surface flow into the groundwater system, dry

wells reroute flow and contaminants to coastal waters that may not normally have received them. Whether this rerouting will have a deleterious effect on the receiving waters at the coast depends on the distance the groundwater and contaminants must flow before being discharged at the coast. In general, the longer the travel distance, the more opportunity there is for water-borne contaminants to attenuate before reaching receiving waters. The analysis in this study focused on the distance between the dry wells and the ocean because in some parts of the Island of Hawai‘i, particularly along the west coast, sensitive groundwater-dependent environments, such as anchialine ponds, are located at or near the coast (Oki and others, 1999; DeVerse, 2006). The GIS was used to compute the horizontal distance between each dry well and the coastline. The coastline used in the analysis was from the National Hydrography Dataset (NHD) map for the Island of Hawai‘i (U.S. Geological Survey, 2004).

Location Relative to Drinking-Water Wells.—Water pumped from a drinking-water well originates as recharge through an area of the ground surface that is hydraulically upgradient from the well (fig. 6). This area is known as the area contributing recharge (ACR) to the well (Franke and others, 1998). The shape of the ACR depends on the pumping rate of the well, geology, and the ambient groundwater

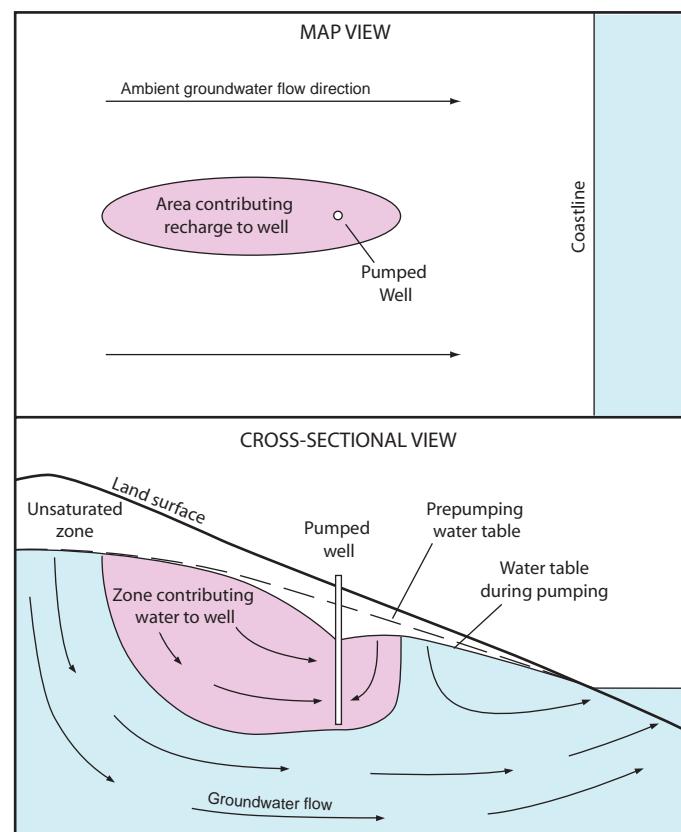


Figure 6. Diagram of area contributing recharge to a well (modified from Izuka and others, 2007).

flow in the aquifer. If a dry well is located within the ACR of a continuously pumping drinking-water well, water that flows into the dry well could eventually be pumped by the drinking-water well. Whether water-borne contaminants carried into the dry well will also emerge at the drinking-water well depends on the nature of the contaminant. Some contaminants become innocuous after only a short time and therefore are only a threat if they are in the part of the ACR that is relatively close to the well. Other contaminants may remain hazardous even after traveling in the groundwater for long periods; these can enter the groundwater system in a part of the ACR that is far from the well and still be hazardous when they reach the well. For this reason, it is useful to divide the ACR into subareas based on travel time. Whittier and others (2004, 2006) delineated 2-year and 10-year travel-time subareas in each ACR. For this study, the location of the dry wells relative to both travel-time subareas was determined by Robert Whittier (University of Hawai‘i, written commun., 2009) using a GIS. These travel times only account for flow within the saturated part of the aquifer; they do not consider vertical time of travel in the unsaturated zone between the dry well and the water table.

Results and Discussion

A total of 2,052 individual DPW dry wells appear in the final inventory (appendix). Assessing the effects of this large number of dry wells beyond the reconnaissance level of this study would require substantial time and resources. Sorting the inventory on the basis of presence or absence of urbanization in the drainage area, distance between the bottom of the dry well and the water table, and proximity to receiving waters helps identify the dry wells having greatest potential to affect the quality of receiving waters so that future studies or mitigation efforts can focus on a smaller number of dry wells.

Urbanization and Distance to Water Table

Results of the GIS analysis indicate that most DPW dry wells drain areas that have little or no urbanization. Eighty-two percent (1,677) of the dry wells have drainage areas that do not encompass any areas of high-intensity development (table 1). Of the 375 dry wells that have areas of high-intensity development within their drainage basins, most are in the South Hilo and North Kona Districts, where urbanization is densest (fig. 7). Because high-intensity developed land is encompassed in the drainage areas of these wells, the potential exists for contaminants associated with urban land use to enter the dry wells.

Most DPW dry wells on the Island of Hawai‘i are less than 30 feet deep, so they may not substantially shorten the percolation distance (relative to natural conditions) to the water table in areas where the water table is hundreds of feet

Table 1. Summary of characteristics of dry wells of the County of Hawai‘i Department of Public Works.
[<, less than; ACR, area contributing recharge]

Dry-well characteristic	Number of dry wells	Percent of all DPW dry wells
All	2,052	100
With high intensity development in drainage area	375	18
With no high-intensity development in drainage area	1,677	82
Penetrating water table	86	4
Penetrating to within 10 feet of water table	108	5
With high-intensity development in drainage area	50	2
0.5 mile or less to coast	211	10
With high-intensity development in drainage area	63	3
Penetrating within 10 feet of water table	80	4
Penetrating within 10 feet of water table, and with high-intensity development in drainage area	32	2
In 10-year travel time of ACR for drinking-water wells	31	2
In 2-year travel time of ACR for drinking-water wells	20	1
With high-intensity development in drainage area	6	<1

below the land surface. In low-lying areas, however, dry wells could potentially penetrate to the water table. According to the analysis in this study, 86 dry wells penetrate through the water table (table 1). This result is consistent with reports in the UIC permit files of standing water in some of these dry wells. These dry wells have effectively eliminated the thickness of rock through which water would normally have percolated before reaching the water table, thereby eliminating opportunities for contaminant attenuation between the ground surface and water table. This analysis assumes, however, that reported or computed ground-surface elevations, dry-well depths, and water-table elevations are accurate. Whereas errors may exist in these values, it is possible that in this analysis, some wells that appear to penetrate close to the water table may actually penetrate to or through the water table. For this reason, the inventory was also searched for dry wells that penetrated to within 10 feet of the water table. A total of 108 dry wells penetrate through or within 10 ft of the water table (table 1). Of these, 50 have drainage areas that encompass high-intensity development. Most of these dry wells are in the South Hilo District and a few are in the North Kona District (fig. 8). The combination of short distance to the water table and drainage from areas of high-intensity development increases the possibility that these dry wells will deliver contaminants associated with urban land use quickly to the water table.

Proximity to Receiving Waters

The GIS analysis indicates that 211 dry wells are 0.5 mile or less from the coast (table 1). Of these, 63 dry wells have

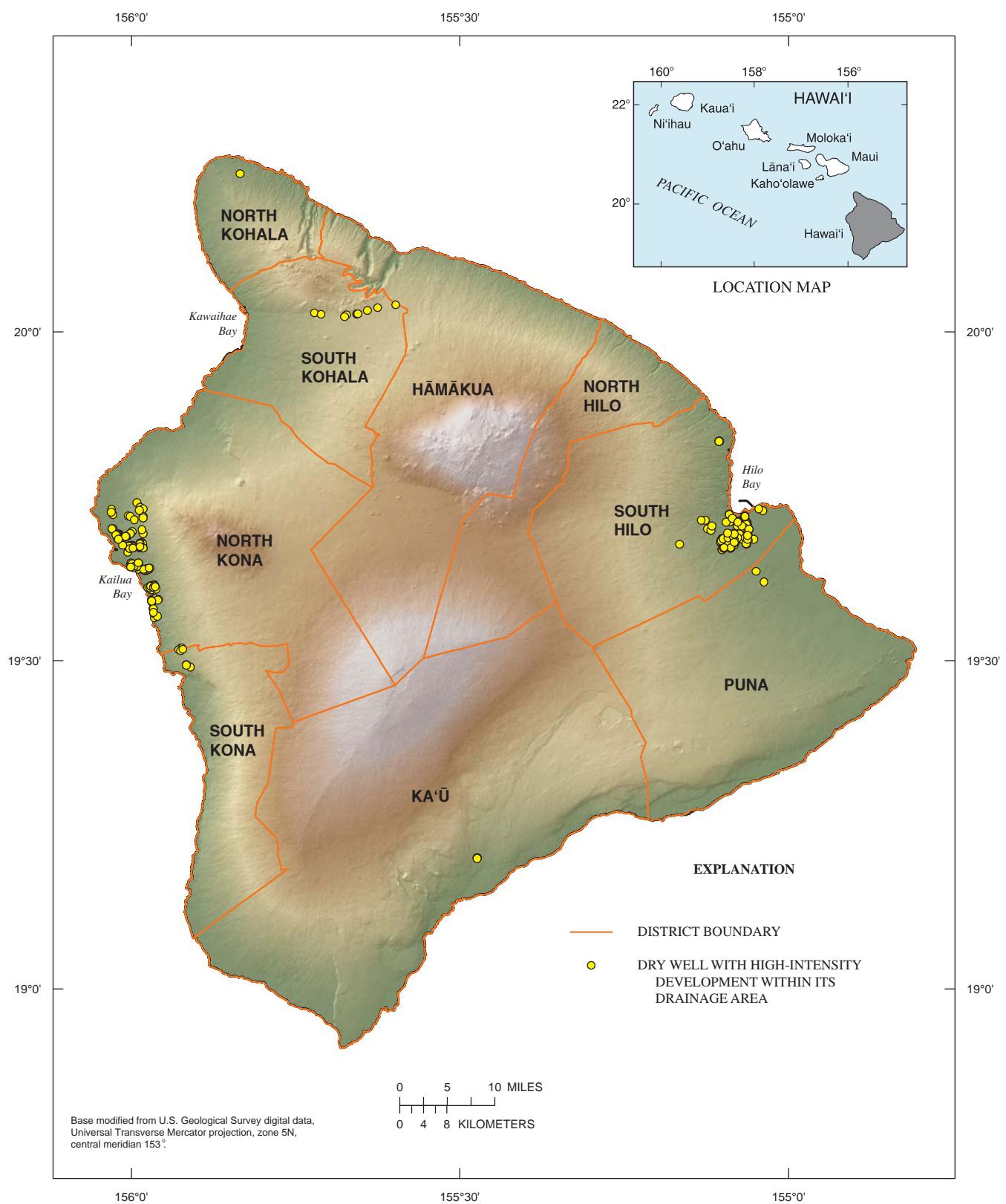


Figure 7. Map of County of Hawai'i Department of Public Works dry wells having high-intensity development within their drainage areas. (District boundaries from Hawai'i State Department of Business, Economic Development and Tourism, 2008.)

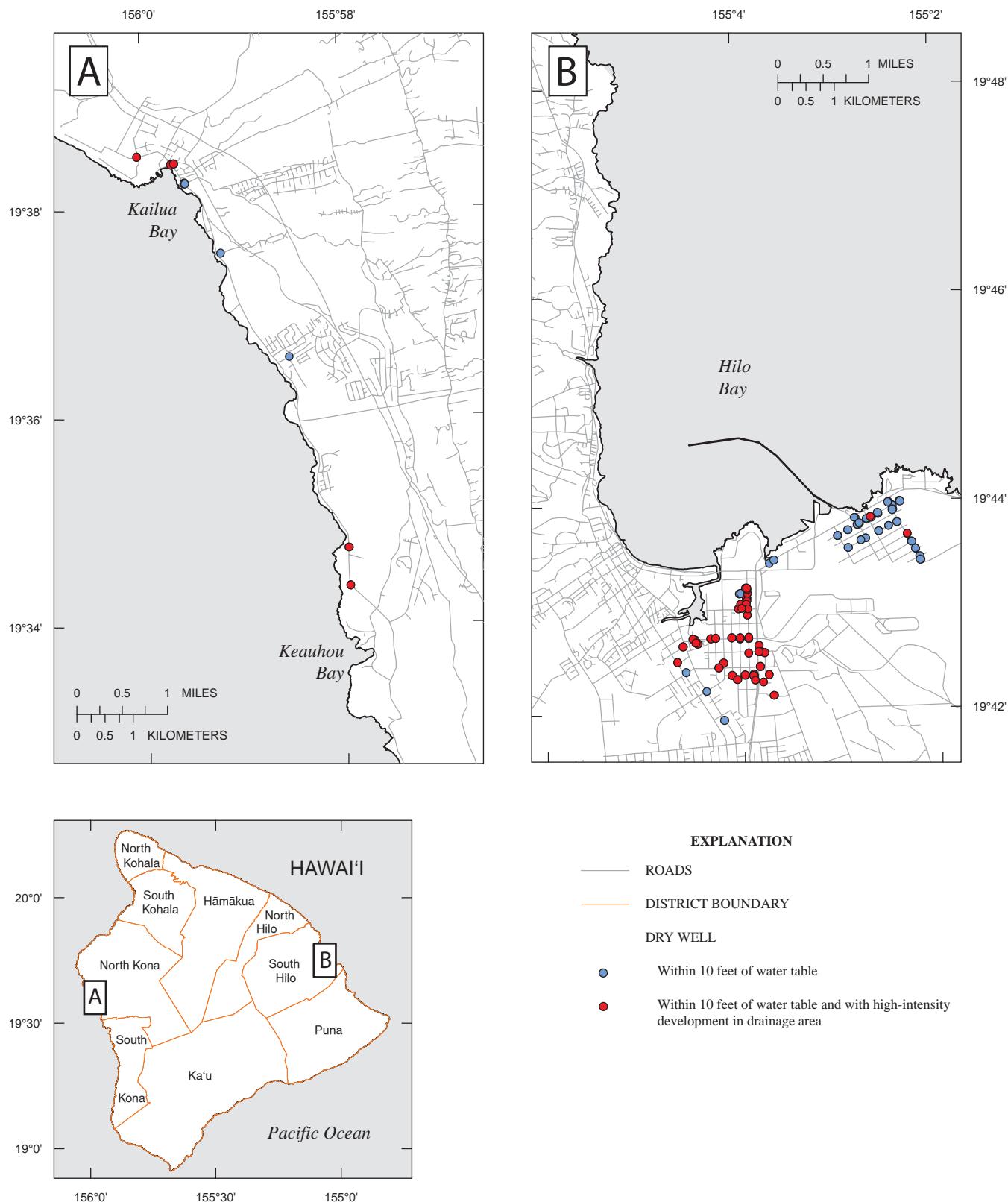


Figure 8. Maps showing County of Hawai‘i Department of Public Works Dry wells penetrating to within 10 feet of the water table. (District boundaries from Hawai‘i State Department of Business, Economic Development and Tourism, 2008.)

drainage areas that include high-intensity development and 80 penetrate to within 10 feet of the water table. Thirty-two dry wells appear in all three categories, that is, they are within 0.5 mile of the coast, penetrate to within 10 ft of the water table, and have drainage areas that include high-intensity development (table 2). Twenty-seven of these dry wells are in the South Hilo District; five are in the North Kona District (fig. 9). Because these dry wells penetrate to near or through the water table, have high-intensity development in their drainage areas, and lie near the coast, the possibility that these dry wells will deliver contaminants associated with urban land use quickly to the water table and then to coastal receiving waters is elevated.

The analysis of dry-well locations relative to drinking-water wells indicates that 31 dry wells are within the 10-year travel-time subareas of the ACRs for drinking-water wells on the Island of Hawai'i (table 1). Most are in the South Hilo District, but a few are in the South Kohala and Puna Districts (fig. 10). Numerical groundwater modeling indicates that once water and contaminants from these dry wells reach the water table, they will flow to the drinking-water wells in 10 years or less; 10 years is considered the minimum time needed to implement management and remedial measures to mitigate an accidental contaminant release over the aquifer (Whittier and others, 2006). Nine of these dry wells have some high-intensity development within their drainage areas (table 3).

Twenty dry wells in the South Hilo and Puna Districts are also within the 2-year ACRs (table 1, fig. 10). Once water and contaminants from these dry wells reach the water table, they can travel the horizontal distance to drinking-water wells in 2 years or less, which is short enough for biologic contaminants such as bacteria and viruses to remain viable (Whittier and others, 2006). Six of these dry wells have some high-intensity development within their drainage basins (table 3). This analysis does not include travel time and attenuation as the water moves vertically in the unsaturated zone, which depends on the vertical distance between the bottom of the dry well and the water table and the hydraulic properties of the rocks. Although all of the dry wells in the 2-year and 10-year travel-time subareas are hundreds of feet above the water table, those that also have urbanization within their drainage areas may warrant further study because of the potential public-health consequences from contamination of a drinking-water well.

The analyses in this study indicate that the dry wells listed in tables 2 and 3 have the highest potential to affect the quality of coastal receiving waters and drinking-water wells. These results provide information that can be used to prioritize existing dry wells for further study of the potential for directing contaminants to receiving waters of concern.

Limitations

The forgoing analysis is based on data from the UIC permit folders and cited geospatial datasets, including a 10-m DEM, land cover from interpretation of satellite data, and water-table

elevations from a numerical model. As discussed, these data have varying degrees of reliability, and some assumptions or estimates have been made to account for missing data. The data also have not been field checked in this study. Future studies can be improved with improvements in data accuracy and reliability. Field verification can confirm location and construction information in the UIC permit files and establish connections between dry wells and other intakes such as storm drains. Higher resolution DEMs can improve the delineation of drainage areas, and field surveys of land use can supplement the satellite-based classification to identify urbanization and sources of contamination within the drainage areas of dry wells. The regional-scale maps of water-table elevations from numerical groundwater modeling can be improved with an updated survey of water levels in existing monitor and pumped wells.

In addressing the proximity to coastal receiving waters in this study, no consideration was given regarding which section of coastline may be of greater concern than another. In reality, however, it is likely that there is greater interest in protecting certain sections of the coast. Concerns may also exist for receiving waters other than at coasts, such as rivers, streams, wetlands, ponds, and springs. Consideration of particularly sensitive receiving waters may be warranted when prioritizing dry wells for further study or mitigation.

The ranking of dry wells in this study is relative. No quantitative criteria are given to distinguish dry wells that will affect receiving waters from those that will not. Tables 2 and 3 list the dry wells that have the highest potential to affect quality of receiving waters, but other dry wells may still have an effect on receiving waters. Whether a given dry well will or will not actually cause deleterious effects on receiving waters depends on other factors. Approaches to understanding these factors are discussed in the next section.

Despite the limitations, this reconnaissance study helps identify which dry wells have a high potential for affecting receiving waters at the coast and in drinking-water wells. The current inventory of DPW dry wells provides a starting dataset that can be used with various geospatial data for other hydrological, ecological, and engineering applications. As more and improved data become available, the inventory can easily be updated, and when receiving waters can be more precisely identified, the updated inventory can be used to analyze transport from the dry wells. The inventory meets the objectives of this reconnaissance study by identifying dry wells that have the highest potential for affecting the quality of receiving waters and providing information that can be used to focus future studies and mitigation efforts.

Possible Approaches to Advancing Understanding of the Effect of Dry Wells on Quality of Receiving Waters

Answering the broad question of whether the dry wells actually pose a significant contamination threat to receiving

Table 2. County of Hawai'i Department of Public Works dry wells that are within 0.5 mile of the coast, penetrate within 10 feet of water table, and have high-intensity development in drainage area.

[UIC, underground injection control; ACR, area contributing recharge; NA, not available. Coordinates in World Geodetic System 1984. Negative values for distance to water table indicate that dry well penetrates below water table. UIC permit number, name, well number, ground elevation, and depth are from UIC permits on file at the County of Hawai'i Department of Public Works.]

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	In ACR
277	1546	Lono Street Drywell	a	19.7080556	-155.0777778	39	12	4	0.41	No
463	1602	Kamana Street Drywell	A	19.7105556	-155.0768361	39	17	-1	0.23	No
464	1603	Manono Street	A	19.7078111	-155.0700611	39	25	-4	0.50	No
467	1605	Former Waiakea Mill Camp 1 Area	C	19.7109083	-155.0743750	16	14	-17	0.19	No
466	1605	Former Waiakea Mill Camp 1 Area	B	19.7115222	-155.0747889	16	12	-15	0.14	No
465	1605	Former Waiakea Mill Camp 1 Area	A	19.7117167	-155.0751528	23	14	-10	0.13	No
468	1605	Former Waiakea Mill Camp 1 Area	D	19.7111194	-155.0746833	18	8	-10	0.17	No
469	1606	Kekuanaoa Street	A	19.7117028	-155.0721556	21	15	-7	0.20	No
474	1606	Kekuanaoa Street	F	19.7116361	-155.0671917	22	15	-6	0.41	No
472	1606	Kekuanaoa Street	D	19.7118000	-155.0671861	23	16	-6	0.41	No
475	1606	Kekuanaoa Street	G	19.7116750	-155.0657417	23	15	-5	0.49	No
470	1606	Kekuanaoa Street	B	19.7118083	-155.0713111	22	13	-5	0.21	No
473	1606	Kekuanaoa Street	E	19.7118028	-155.0657389	25	14	-3	0.49	No
471	1606	Kekuanaoa Street	C	19.7118389	-155.0685889	25	11	1	0.33	No
545	1638	Hoolulu Park Drywells	G	19.7180490	-155.0659230	15	18	-11	0.37	No
542	1638	Hoolulu Park Drywells	D	19.7188220	-155.0658070	15	18	-11	0.35	No
547	1638	Hoolulu Park Drywells	I	19.7176260	-155.0659230	16	17	-9	0.39	No
540	1638	Hoolulu Park Drywells	B	19.7196660	-155.0660920	15	15	-8	0.30	No
553	1638	Hoolulu Park Drywells	O	19.7153056	-155.0658333	23	18	-8	0.45	No
541	1638	Hoolulu Park Drywells	C	19.7194870	-155.0658400	12	11	-8	0.32	No
539	1638	Hoolulu Park Drywells	A	19.7196670	-155.0659490	14	13	-7	0.31	No
548	1638	Hoolulu Park Drywells	J	19.7171056	-155.0669417	17	15	-6	0.36	No
551	1638	Hoolulu Park Drywells	M	19.7171000	-155.0660500	17	14	-5	0.41	No
549	1638	Hoolulu Park Drywells	K	19.7163833	-155.0673778	15	11	-4	0.36	No
552	1638	Hoolulu Park Drywells	N	19.7163056	-155.0657167	19	14	-3	0.46	No
550	1638	Hoolulu Park Drywells	L	19.7164389	-155.0668167	16	11	-3	0.40	No
618	1653	Keaukaha Residential Residential Homestead Subd.	12	19.7306778	-155.0447306	4	11	-7	0.09	No
684	1675	West Hawaii Today Offices and Production Facility	1	19.6418278	-156.0007000	21	20	1	0.26	No
1499	2274	Alii Drive Impr.	8	19.5727222	-155.9657722	36	26	10	0.12	No
1540	2355	The Beach Villas at Kahaluu	1	19.5787611	-155.9659667	19	28	-9	0.08	No
1576	NA	Kailua Parking Lot	1	19.6404528	-155.9949528	18	16	2	0.04	No
1612	NA	Kailua Parking Lot	2	19.6405917	-155.9944778	14	10	4	0.06	No

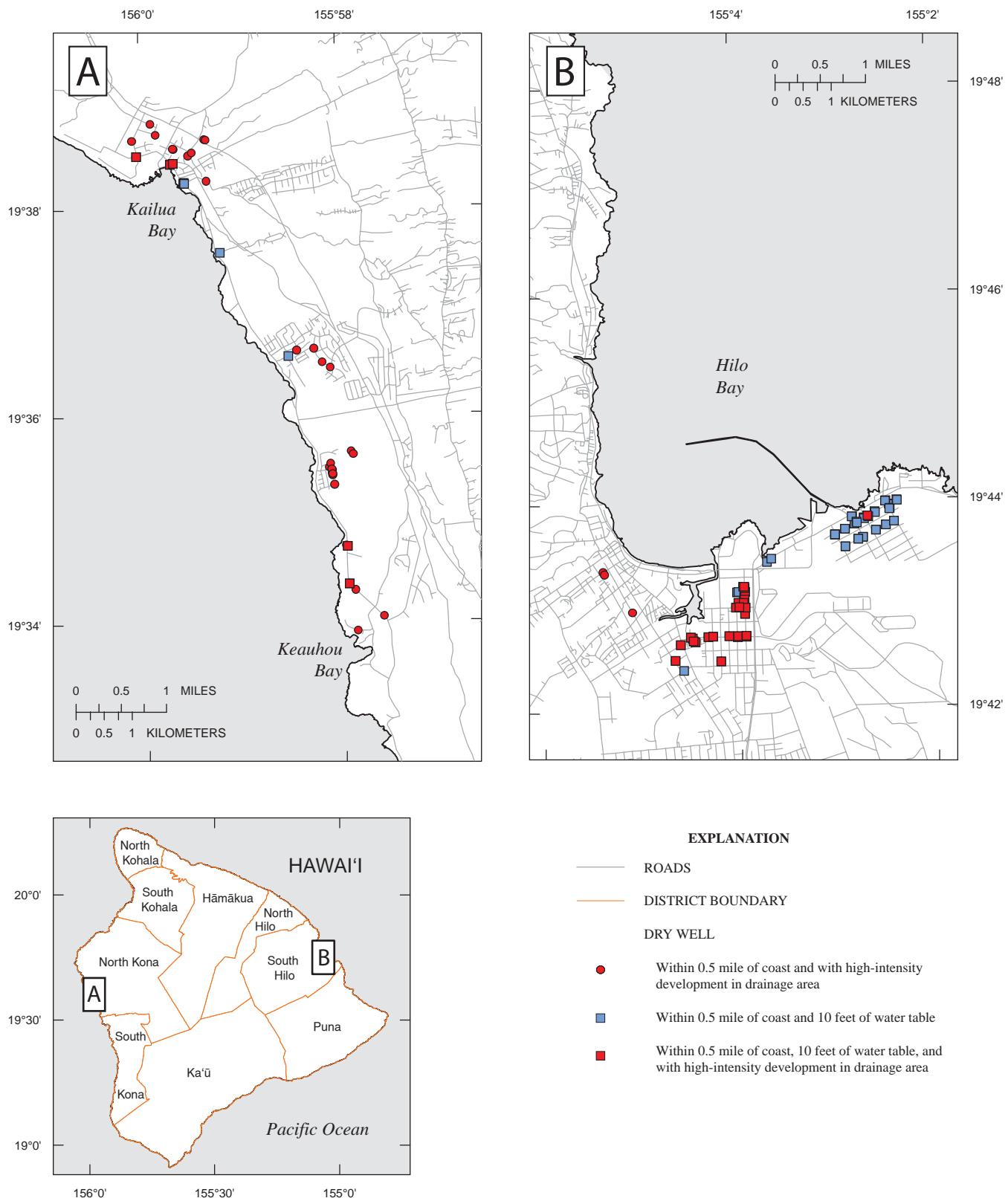


Figure 9. Maps showing County of Hawai'i Department of Public Works Dry wells within 0.5 mile of the coast. (District boundaries from Hawai'i State Department of Business, Economic Development and Tourism, 2008.)

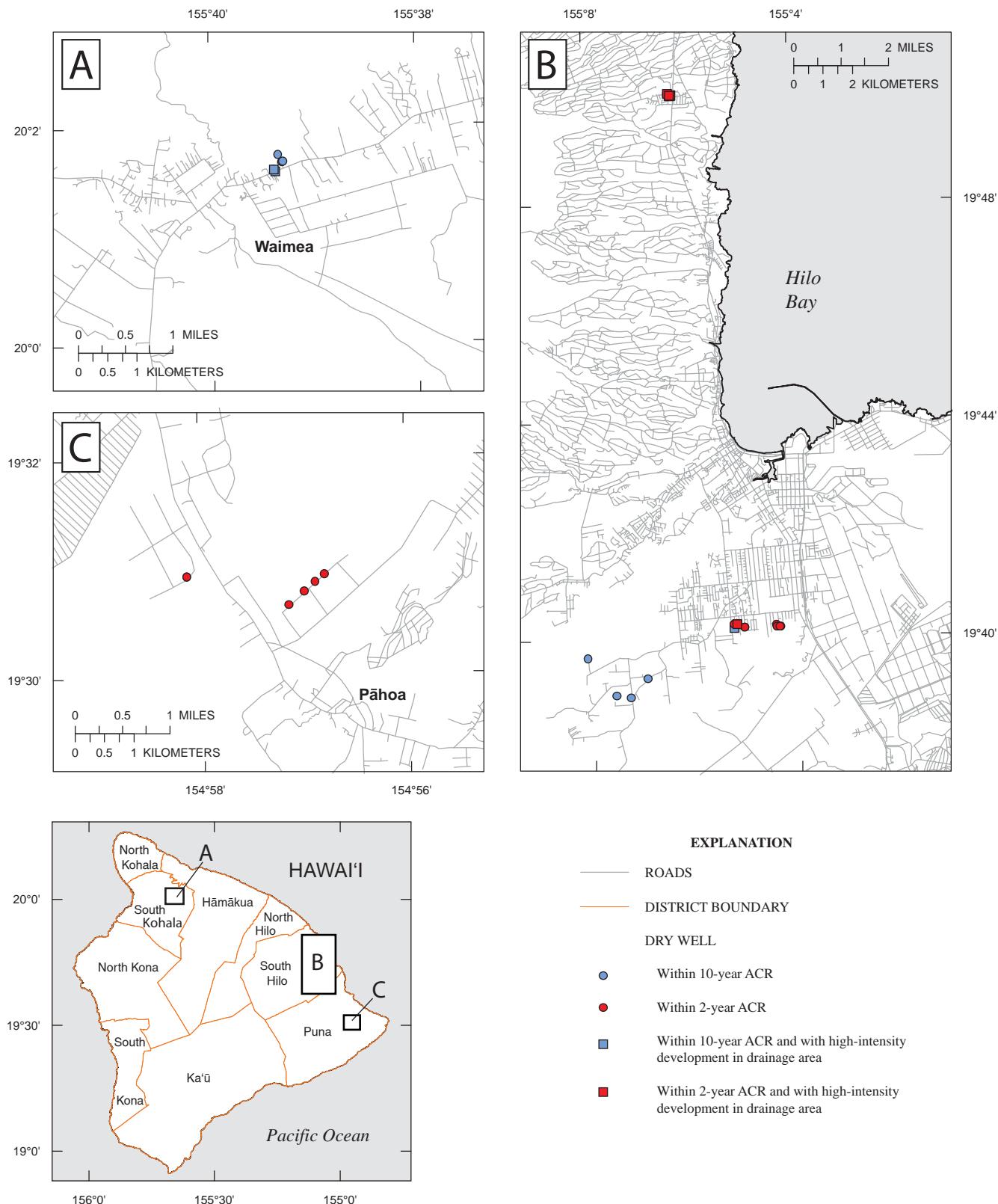


Figure 10. Maps showing County of Hawai‘i Department of Public Works dry wells within the areas contributing recharge to drinking-water wells. (District boundaries from Hawai‘i State Department of Business, Economic Development and Tourism, 2008.)

Table 3. County of Hawai‘i Department of Public Works dry wells that are within the area contributing recharge to a drinking-water well, and have high-intensity development in drainage area.

[UIC, underground injection control; ACR, area contributing recharge; NA, not available. Coordinates in World Geodetic System 1984. Negative values for distance to water table indicate that dry well penetrates below water table. UIC permit number, name, well number, ground elevation, and depth are from UIC permits on file at the County of Hawai‘i Department of Public Works.]

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	In ACR
736	1724	Nani Malio Subdivision	1	19.8330167	-155.1046972	507	25	454	1.20	2 year ¹
737	1724	Nani Malio Subdivision	2	19.8331417	-155.1047000	507	26	453	1.21	2 year ¹
738	1724	Nani Malio Subdivision	3	19.8336222	-155.1056694	528	26	474	1.28	2 year ¹
739	1724	Nani Malio Subdivision	4	19.8329889	-155.1051194	515	26	461	1.22	2 year ¹
740	1724	Nani Malio Subdivision	5	19.8330917	-155.1051250	515	26	461	1.23	2 year ¹
804	1741	Hale O Lani Subdiv. Area	5	19.6707278	-155.0868694	459	20	408	3.04	2 year ¹
805	1741	Hale O Lani Subdiv. Area	6	19.6696389	-155.0878194	461	20	410	3.13	10 year
1289	1978	Parker Ranch Parcel 42 Subdivision	1	20.0267111	-155.6565194	2,758	26	2,718	7.62	10 year
1290	1978	Parker Ranch Parcel 42 Subdivision	2	20.0263750	-155.6563389	2,728	26	2,689	7.63	10 year

¹Dry wells in the 2-year ACR of a given drinking water well will also be in the 10-year ACR for that drinking-water well.

waters requires answers to more fundamental questions, such as (1) what types and concentrations of contaminants enter the dry wells, (2) where do groundwater flow paths take these contaminants, (3) how are the contaminants attenuated as they flow through the subsurface, and (4) what contaminant concentrations are considered detrimental to the receiving waters. Future studies can advance understanding of the effect of dry wells by addressing these questions.

Contaminants Entering the Dry Wells.—Determining the types and concentrations of contaminants entering the dry wells involves water sampling and analysis. A single sample can only indicate conditions for the instant the sample was taken, but an automated monitoring system can be used to collect multiple samples over a period of time. Sediment accumulates in the dry well over time, and its analysis therefore offers another approach to studying the contaminants that enter a dry well over a long period. Sediment analysis may, however, be biased toward hydrophobic compounds that tend to sorb onto sediment particles and may underrepresent contaminants that tend to remain dissolved and be transported in water.

It is reasonable to expect that under normal use, roadside dry wells will receive contaminants typical of road runoff, such as polycyclic aromatic hydrocarbons (PAHs) and metals from vehicles, pavement wear, and road maintenance (Grant and others, 2003). Concentrations, however, are dependent on climate and the amount of traffic on the road. Sampling water and sediment may be particularly useful if there is concern about unusual contaminants entering the dry wells, for example from nearby industry, spills, or illegal disposal.

Depending on the receiving water, even the contaminants in ordinary road runoff may be a concern. Water samples from suspected receiving waters can be analyzed for the types of contaminants expected from road runoff, but the results of such analysis may be difficult to interpret. If contaminants are detected, it may be difficult to determine whether the dry wells are the source, or specifically which dry wells are the source. If contaminants are not detected, it is possible that they will reach the receiving waters at some later time or emerge at sites other than those that were monitored.

Groundwater Flow Paths.—Injecting a tracer such as a dye into a dry well and monitoring where it emerges can help determine whether a direct groundwater flow path exists between a dry well and receiving waters and estimate the time it will take the contaminant to travel this path. This approach may be inconclusive, however, if the tracer is not detected—the tracer may have emerged in a location not covered by the monitoring network or may take longer to reach the receiving water than the time allotted for monitoring. Also, contaminants are likely to have sorption and reaction properties that differ from those of the tracer.

Numerical groundwater-flow modeling can simulate how dry wells reroute storm water and assess whether groundwater flow paths are likely to carry contaminants from a dry well to a receiving water. The models can be constructed in a manner that eliminates the dye-tracer problems discussed above, but

are limited by the generalization and simplification inherent in creating a numerical model of an actual groundwater system. The accuracy of numerical models is also limited by the availability of data that accurately describe the hydrologic system.

Contaminant Attenuation.—Numerical modeling can also simulate attenuation of contaminants as they pass through the groundwater system and thereby indicate the level of concentration that is likely to emerge at the receiving water. Most solute-transport models are coupled with groundwater flow and can simulate the common solute-transport processes that contribute to attenuation, such as advection, dispersion, mixing, sorption, and decay. These coupled models offer the most comprehensive approach to assessing contaminant transport between dry wells and receiving waters. Model accuracy depends upon availability of accurate hydrologic and chemical data.

Detrimental Contaminant Concentrations.—Determining detrimental contamination concentrations depends on the use of the receiving water and is primarily an ecological or public health issue. Contaminant-concentration limits for receiving waters are normally established by the agencies tasked with protecting those waters. To fully assess whether dry wells actually pose a significant contamination threat to receiving waters, results from modeling or monitoring must be compared to these contaminant-concentration limits.

Summary and Conclusions

The County of Hawai‘i DPW operates 2,052 dry wells. Compiling an inventory of these dry wells and sorting it on the basis of presence or absence of urbanization in the drainage area, distance between the bottom of the dry well and the water table, and proximity to receiving waters helps identify the dry wells having greatest potential to affect the quality of receiving waters so that future studies or mitigation efforts can focus on a smaller number of dry wells.

Drainage areas of some DPW dry wells encompass high-intensity development, which could be a source of contaminants related to urban land use. Some dry wells in low-lying areas penetrate close to or through the water table, thus eliminating or substantially reducing opportunities for contaminant attenuation between the ground surface and water table.

Some DPW dry wells are 0.5 mile or less from the coast, placing them near coastal receiving waters. Some of these dry wells have drainage areas that include high-intensity development or penetrate to near the water table. On the basis of the analyses in this study, these dry wells have the highest potential to conduct contaminants from urban land use quickly to the water table and affect the quality of groundwater in coastal areas. This study did not, however, consider whether specific sections of coastline may be of greater concern than others, nor did it consider receiving waters other than the ocean and drinking-water wells.

A few DPW dry wells lie within the areas contributing recharge to drinking-water wells. Groundwater-model

simulations by Whittier and others (2006) indicate that water infiltrating those dry wells could eventually be pumped at drinking-water wells. Whether contaminants will be viable when they reach the drinking-water well depends in part on the travel time in the groundwater system. Some dry wells are in the 10-year travel time subarea of the ACR, and some are in the 2-year travel time subarea. Some of these dry wells have high-intensity development within their drainage basins. Although all dry wells within the ACRs are hundreds of feet above the water table, further assessment of contaminant transport may be warranted because of the potential public-health consequences from contamination of a drinking-water well.

Although there are limitations, this reconnaissance study helps identify which dry wells have a high potential for affecting receiving waters at the coast and in drinking-water wells. As more and improved data become available, the inventory can easily be updated, and when receiving waters can be more precisely identified, the updated inventory can be used to analyze transport from the dry wells. The study also provides information that can be used to focus future studies and mitigation efforts.

Understanding of whether dry wells pose a significant contamination threat to receiving waters can be advanced by sampling for contaminants at the dry well and receiving water, by injecting and monitoring the movement of tracers, and by numerical modeling. To fully assess whether dry wells actually pose a significant contamination threat to receiving waters, sampling and modeling results must be compared to limits for contaminant concentration at receiving waters. These limits are usually established by the agencies tasked with protecting those waters.

References Cited

- Clague, D.A., and Dalrymple, G.B., 1987, The Hawaiian-Emperor volcanic chain, in Decker, R.W., Wright, T.L., and Stauffer, P.H., Volcanism in Hawaii: U.S. Geological Survey Professional Paper 1350, v. 1, p. 5–54.
- Departments of Public Works of the State of Hawaii, 1984, Standard details for public works construction: 207 p.
- DeVerse, K., 2006, Appendix A; Kaloko-Honokohau National Historical Park resource overview, in HaySmith, L., Klasner, F. L., Stephens, S. H., and Dicus, G. H., Pacific Island Network vital signs monitoring plan: Fort Collins, Colorado, National Park Service, Natural Resource Report NPS/PACN/NRR—2006/003, 21 p. [<http://science.nature.nps.gov/im/units/pacn/monitoring/plan/> PACN_MP_AppendixA_KAHO.pdf, accessed November 4, 2009]
- Franke, O.L., Reilly, T.E., Pollock, D.W., and La Baugh, J.W., 1998, Estimating areas contributing recharge to wells; lessons from previous studies: U.S. Geological Survey Circular 1174, 14 p.
- Giambelluca, T.W., Nullet, M.A., and Schroeder, T.A., 1986, Rainfall atlas of Hawaii: Honolulu, State of Hawaii Department of Land and Natural Resources, Division of Water and Land, Development Report no. R76, 267 p.
- Grant, S.B., Rekhi, N.V., Pise, N.R., Reeves, R.L., Matsumoto, M., Wistrom, A., Moussa, L., Bay, S., and Kayhanian, M., 2003, A review of the contaminants and toxicity associated with particles in stormwater runoff: Caltrans CTSW-RT-03-059.73.15, 72 p. [<http://www.dot.ca.gov/hq/env/stormwater/pdf/CTSW-RT-03-059.pdf>, accessed June 4, 2009].
- Hawai‘i State Department of Health, 2006, Underground Injection Control (UIC) program: [<http://hawaii.gov/health/environmental/water/sdwb/uic/uicprogram.html>, accessed December 23, 2008].
- Hawai‘i State Department of Business, Economic Development and Tourism, 2008, Hawaii State GIS Program; judicial boundaries: [<http://hawaii.gov/dbedt/gis/judicial.htm>, accessed April 24, 2009].
- Hawai‘i State Land Use Commission, 2002, Findings of fact, conclusions of law, and decision and order for a state land use district boundary amendment Docket A00-732: [<http://luc.state.hi.us/cohawaii/a00-732tsa.pdf>, accessed September 15, 2009].
- Hunt, C.D., 1996, Geohydrology of the island of Oahu, Hawaii: U.S. Geological Survey Professional Paper 1412-B, 54 p.
- Izuka, S.K., Perreault, J.A., and Presley, T.K., 2007, Areas contributing recharge to wells in the Tafuna-Leone Plain, American Samoa: U.S. Geological Survey Scientific Investigations Report 2007-5167, 51 p.
- Macdonald, G.A., Abbott, A.T., and Peterson, F.L., 1983, Volcanoes in the sea, the geology of Hawaii: Honolulu, University of Hawai‘i Press, 517 p.
- Madiment, D.R., ed., 2002, Arc Hydro – GIS for water resources: Redlands, California, ESRI press, 203 p., 1 compact disc (CD).
- National Oceanic and Atmospheric Administration, 2001, Hawaii 2001 land cover data: Coastal Services Center, Digital file [<http://www.csc.noaa.gov/crs/lca/hawaii.html>, accessed January 27, 2009].
- Oki, D.S., 1999, Geohydrology and numerical simulation of the ground-water flow system of Kona, Island of Hawaii, U.S. Geological Survey Water-Resources Investigations Report 99-4070, 49 p.
- Oki, D.S., 2002, Reassessment of ground-water recharge and simulated ground-water availability for the Hawi area of North Kohala, Hawaii: U.S. Geological Survey Water-Resources Investigations Report 02-4006, 62 p.
- Oki, D.S., Tribble, G.W., Souza, W.R., and Bolke, E.L., 1999, Ground-water resources in Kaloko Honokohau National Historical Park, Island of Hawaii, and numerical simulation of the effects of groundwater withdrawals: U.S. Geological Survey Water-Resources Investigations Report 99-4070, 49 p.
- Peterson, D.W., and Moore, R.B., 1987, Geologic History and Evolution of geologic concepts, Island of Hawaii, in Decker,

- R.W., Wright, T.L., and Stauffer, P.H., Volcanism in Hawaii: U.S. Geological Survey Professional Paper 1350, v. 1, p. 149-198.
- Sato, H.T., Ikeda, W., Paeth, R., Smythe, R., and Yakehiro, M., 1973, Soil survey of the island of Hawaii, State of Hawaii: U.S. Department of Agriculture, Soil Conservation Service, 115 p. plus maps.
- Sherrod, D.R., Sinton, J.M., Watkins, S.E., and Brunt, K.M., 2008, Geologic map of the State of Hawai‘i: U.S. Geological Survey Open-File Report 2007-1089, 83 p., 8 plates, scales 1:100,000 and 1:250,000, with GIS database.
- Stearns, H.T., and Macdonald, G.A., 1946, Geology and ground-water resources of the island of Hawaii: Hawaii Division of Hydrography, Bulletin 9, 303 p., 1 plate.
- Takasaki, K.J., and Mink, J.F., 1985, Evaluation of major dike-impounded ground-water reservoirs, island of Oahu: U.S. Geological Survey Water-Supply Paper 2217, 77 p.
- Underwood, M.R., Meyer, W., and Souza, W.R., 1995, Ground-water availability from the Hawi Aquifer in the Kohala area, Hawaii: U.S. Geological Survey Water-Resources Investigations Report 95-4113, 57 p.
- U.S. Environmental Protection Agency, 1999, The Class V Underground Injection Control study, volume 3, storm water drainage wells: EPA/816-R-99-014c, 96 p.
- U.S. Environmental Protection Agency, 2007, Class V injection wells: [<http://www.epa.gov/OGWDW/uic/class5/index.html>, accessed November 14, 2008].
- U.S. Geological Survey, 2003, Hawaii (Big Island) digital elevation model: National Elevation Dataset, digital file [<http://seamless.usgs.gov>, accessed November 5, 2008].
- U.S. Geological Survey, 2004, Hawaii (Big Island) coastline: National Hydrography Dataset, digital file [<http://Hawaii.wr.usgs.gov/hawaii/data.html>, accessed November 19, 2008].
- U.S. Geological Survey, 2009, Hawaiian Volcano Observatory: [<http://hvo.wr.usgs.gov>, accessed September 14, 2009].
- Whittier, R.B., Rotzoll, K., Dhal, S., El-Kadi, A.I., Ray, C., Chen, G., and Chang, D., 2004, Island of Hawaii Source Water Assessment Program report: Honolulu, University of Hawaii, Water Resources Research Center, Hawaii Source Water Assessment Program report, volume II, 65 p.
- Whittier, R.B., Rotzoll, K., Dhal, S., El-Kadi, A.I., Ray, C., Chen, G., and Chang, D., 2006, Approach used for the Hawaii source water assessments: Honolulu, University of Hawaii, Water Resources Research Center, Hawaii Source Water Assessment Program report, volume I, 73 p.

Appendix. County of Hawai'i Department of Public Works dry wells.

[UIC, underground injection control; ACR, area contributing recharge; NA, not available. Coordinates in World Geodetic System 1984. Negative values for distance to water table indicate that dry well penetrates below water table. UIC permit number, name, well number, ground elevation, and depth are from UIC permits on file at the County of Hawai'i Department of Public Works.]

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
14	1410	Panaewa Hillcrest-Unit I & II	A	19.6762694	-155.0637806	204	20.3	157	2.67	Yes	No
16	1410	Panaewa Hillcrest-Unit I & II	B	19.6760083	-155.0643083	174	20.0	127	2.68	Yes	No
17	1410	Panaewa Hillcrest-Unit I & II	C	19.6770889	-155.0643389	193	22.5	144	2.61	Yes	No
1951	1413	Kamuela View Estates Unit 1-C	A	20.0270300	-155.7211780	2,124	20.0	2,091	6.59	No	No
1952	1413	Kamuela View Estates Unit 1-C	B	20.0269130	-155.7211470	2,121	20.0	2,088	6.59	No	No
1953	1413	Kamuela View Estates Unit 1-C	C	20.0273230	-155.7196140	2,144	20.0	2,111	6.70	No	No
1954	1413	Kamuela View Estates Unit 1-C	D	20.0289710	-155.7195850	2,159	20.0	2,127	6.70	No	No
1955	1413	Kamuela View Estates Unit 1-C	E	20.0294660	-155.7187800	2,175	20.0	2,142	6.76	No	No
18	1414	Pacific Plantation Subd.	A	19.6897667	-155.1224556	757	19.0	705	3.27	No	No
19	1414	Pacific Plantation Subd.	B	19.6879111	-155.1213444	750	24.2	693	3.33	No	No
20	1414	Pacific Plantation Subd.	C	19.6868611	-155.1235472	842	22.5	786	3.47	No	No
21	1414	Pacific Plantation Subd.	D	19.6868500	-155.1254417	837	20.0	783	3.55	No	No
22	1414	Pacific Plantation Subd.	E	19.6862222	-155.1266917	857	20.0	804	3.64	No	No
23	1414	Pacific Plantation Subd.	F	19.6854194	-155.1278139	905	20.0	852	3.73	No	No
24	1414	Pacific Plantation Subd.	G	19.6847889	-155.1290306	944	20.0	890	3.81	No	No
25	1414	Pacific Plantation Subd.	H	19.6841889	-155.1304111	967	20.0	910	3.90	No	No
1956	1418	Kukila Street Drywell		19.7023810	-155.0616910	51	22.0	10	1.10	Yes	No
26	1420	Waiakea Estates Sub.	1	19.6709583	-155.0976722	544	17.5	495	3.27	Yes	No
27	1420	Waiakea Estates Sub.	2	19.6717944	-155.0974222	536	17.5	487	3.21	Yes	No
28	1420	Waiakea Estates Sub.	3	19.6701944	-155.0976222	561	17.5	512	3.32	Yes	No
29	1421	Kula-Keaau Subd.	A	19.6193750	-155.0362750	317	19.1	267	3.83	No	No
30	1421	Kula-Keaau Subd.	B	19.6195306	-155.0368972	315	18.5	266	3.87	Yes	No
31	1421	Kula-Keaau Subd.	C	19.6194194	-155.0369389	315	18.4	266	3.87	No	No
32	1421	Kula-Keaau Subd.	D	19.6182083	-155.0359556	312	14.3	267	3.84	No	No
33	1424	Allan S. Takase Trust Subd.	1	19.7163380	-155.0977530	267	13.5	227	0.84	No	No
34	1425	Komohana 79	A	19.7157194	-155.0971889	256	10.5	219	0.86	No	No
1957	1426	Malu Ridge Phase I	A	20.2091910	-155.8359890	1,374	20.0	1,347	3.55	No	No
1958	1426	Malu Ridge Phase I	B	20.2094110	-155.8369000	1,385	20.0	1,358	3.55	No	No
1959	1426	Malu Ridge Phase I	C	20.2106050	-155.8370410	1,362	20.0	1,335	3.47	No	No
1960	1426	Malu Ridge Phase I	D	20.2115920	-155.8364430	1,324	20.0	1,298	3.40	No	No
1961	1426	Malu Ridge Phase I	E	20.2129090	-155.8375780	1,293	20.0	1,266	3.32	No	No
1962	1426	Malu Ridge Phase I	F	20.2140750	-155.8380050	1,250	20.0	1,223	3.25	No	No
1963	1426	Malu Ridge Phase I	G	20.2150060	-155.8385200	1,211	20.0	1,185	3.20	No	No
1964	1426	Malu Ridge Phase I	H	20.2151370	-155.8394210	1,240	20.0	1,214	3.21	No	No
1965	1426	Malu Ridge Phase I	I	20.2151420	-155.8408980	1,280	20.0	1,254	3.24	No	No
1966	1426	Malu Ridge Phase I	J	20.2163230	-155.8365250	1,166	20.0	1,139	3.08	No	No
1967	1426	Malu Ridge Phase I	K	20.2176090	-155.8364820	1,115	20.0	1,088	2.99	No	No
36	1429	Keaau Ag Lots	A	19.6109333	-155.0475972	531	20.0	478	4.73	No	No
37	1429	Keaau Ag Lots	AA	19.6015250	-155.0478056	557	20.0	503	5.04	No	No
38	1429	Keaau Ag Lots	AB	19.6027667	-155.0467556	535	19.4	483	4.94	No	No
39	1429	Keaau Ag Lots	AC	19.6039750	-155.0479028	557	19.6	504	4.96	No	No
40	1429	Keaau Ag Lots	AD	19.5990944	-155.0512750	584	17.8	533	5.32	No	No
41	1429	Keaau Ag Lots	AE	19.5991250	-155.0494000	542	18.1	490	5.21	No	No
42	1429	Keaau Ag Lots	AF	19.5991361	-155.0478972	524	16.8	474	5.13	No	No
43	1429	Keaau Ag Lots	AG	19.5985139	-155.0469556	521	15.4	472	5.10	No	No
44	1429	Keaau Ag Lots	B	19.6108222	-155.0470333	533	16.8	484	4.70	No	No
45	1429	Keaau Ag Lots	C	19.6122778	-155.0435806	480	20.8	427	4.46	No	No
46	1429	Keaau Ag Lots	D	19.6121833	-155.0435944	482	24.3	426	4.46	No	No
47	1429	Keaau Ag Lots	E	19.6098278	-155.0455667	544	17.4	495	4.65	No	No
48	1429	Keaau Ag Lots	F	19.6088389	-155.0441083	500	18.7	449	4.59	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
49	1429	Keaau Ag Lots	G	19.6086889	-155.0442806	499	16.6	450	4.60	No	No
50	1429	Keaau Ag Lots	H	19.6079917	-155.0433694	482	16.6	433	4.57	No	No
51	1429	Keaau Ag Lots	I	19.6099972	-155.0405417	437	19.7	385	4.35	No	No
52	1429	Keaau Ag Lots	J	19.6113111	-155.0399417	431	20.1	379	4.27	No	No
53	1429	Keaau Ag Lots	K	19.6108639	-155.0385000	396	20.5	343	4.20	No	No
54	1429	Keaau Ag Lots	L	19.6108444	-155.0386083	400	16.8	351	4.21	No	No
55	1429	Keaau Ag Lots	M	19.6099750	-155.0387972	407	17.8	357	4.24	No	No
56	1429	Keaau Ag Lots	N	19.6080444	-155.0397806	434	21.9	380	4.36	No	No
57	1429	Keaau Ag Lots	O	19.6073556	-155.0427500	471	18.5	421	4.56	No	No
58	1429	Keaau Ag Lots	P	19.6066833	-155.0418778	458	17.0	408	4.53	No	No
59	1429	Keaau Ag Lots	Q	19.6059583	-155.0410833	451	17.7	400	4.51	No	No
60	1429	Keaau Ag Lots	R	19.6053306	-155.0416333	462	20.0	409	4.56	No	No
61	1429	Keaau Ag Lots	S	19.6062944	-155.0436083	489	16.6	440	4.64	No	No
62	1429	Keaau Ag Lots	T	19.6062028	-155.0436806	491	17.4	440	4.65	No	No
63	1429	Keaau Ag Lots	U	19.6044194	-155.0452139	511	19.0	460	4.79	No	No
64	1429	Keaau Ag Lots	V	19.6043278	-155.0426056	480	15.5	432	4.65	No	No
65	1429	Keaau Ag Lots	W	19.6030639	-155.0438944	500	19.7	448	4.77	No	No
66	1429	Keaau Ag Lots	X	19.6009333	-155.0459556	515	20.0	462	4.96	No	No
67	1429	Keaau Ag Lots	Y	19.5996722	-155.0471806	520	20.2	466	5.07	No	No
68	1429	Keaau Ag Lots	Z	19.5995611	-155.0473306	520	20.3	466	5.08	No	No
1968	1431	Kahei Houselots	A	20.2367610	-155.8361060	648	25.0	617	1.73	No	No
69	1432	Kealakehe Houselots Ph II-I	A	19.6697194	-155.9861361	681	20.0	660	2.14	No	No
70	1432	Kealakehe Houselots Ph II-I	B	19.6699611	-155.9874278	661	20.0	639	2.13	No	No
71	1432	Kealakehe Houselots Ph II-I	C	19.6691083	-155.9870111	654	20.0	633	2.08	No	No
72	1432	Kealakehe Houselots Ph II-I	D	19.6683722	-155.9866611	639	20.0	618	2.04	No	No
73	1432	Kealakehe Houselots Ph II-I	E	19.6676278	-155.9862917	643	20.0	621	2.00	No	No
74	1432	Kealakehe Houselots Ph II-I	F	19.6688944	-155.9860083	665	20.0	644	2.08	No	No
75	1433	Pahala Village, 10th Series	A	19.1995639	-155.4733944	790	28.0	742	3.48	Yes	No
76	1433	Pahala Village, 10th Series	B	19.1989778	-155.4737611	808	25.0	762	3.46	No	No
77	1433	Pahala Village, 10th Series	C	19.1984389	-155.4727472	788	22.5	745	3.39	No	No
78	1433	Pahala Village, 10th Series	D	19.1993889	-155.4730611	809	25.0	763	3.46	Yes	No
79	1433	Pahala Village, 10th Series (UH-1513)	E	19.1987222	-155.4733222	801	20.0	760	3.43	Yes	No
80	1434	Kawaiiani Ridge Units I & II	A	19.6832639	-155.1045000	495	15.3	448	2.82	No	No
81	1434	Kawaiiani Ridge Units I & II	B	19.6833778	-155.1044000	492	17.2	444	2.81	No	No
82	1434	Kawaiiani Ridge Units I & II	C	19.6842639	-155.1044194	475	10.1	434	2.76	No	No
83	1436	Kealakaa & Manawalea St. Drywells	1	19.6760333	-155.9858083	766	17.0	748	2.34	No	No
84	1436	Kealakaa & Manawalea St. Drywells	2	19.6752556	-155.9859111	765	17.0	747	2.32	No	No
85	1436	Kealakaa & Manawalea St. Drywells	3	19.6750000	-155.9874500	714	20.0	693	2.22	Yes	No
86	1444	Kuakini Makai Subd. - Incr. I	A	19.6162944	-155.9731083	216	23.0	193	0.60	No	No
87	1444	Kuakini Makai Subd. - Incr. I	B	19.6156444	-155.9740361	185	22.0	162	0.53	No	No
88	1444	Kuakini Makai Subd. - Incr. I	C	19.6162889	-155.9729361	220	20.0	200	0.61	No	No
89	1444	Kuakini Makai Subd. - Incr. I	D	19.6155389	-155.9739778	185	20.0	164	0.53	No	No
90	1444	Kuakini Makai Subd. - Incr. I	E	19.6157778	-155.9742750	181	20.0	160	0.52	No	No
91	1444	Kuakini Makai Subd. - Incr. I	F	19.6143917	-155.9733861	165	20.0	145	0.50	No	No
92	1444	Kuakini Makai Subd. - Incr. I	G	19.6157417	-155.9743861	178	20.0	157	0.52	No	No
1969	1446	Lakeland Subdivision Drywell		20.0403310	-155.5970880	2,840	22.0	2,801	5.45	Yes	No
93	1447	W.H. Shipman Industrial Park	A	19.6382639	-155.0436694	310	24.0	256	3.98	No	No
94	1447	W.H. Shipman Industrial Park	B	19.6384750	-155.0438694	311	26.4	255	4.00	No	No
95	1447	W.H. Shipman Industrial Park	C	19.6377278	-155.0444306	318	21.1	268	4.04	No	No
96	1447	W.H. Shipman Industrial Park	D	19.6376056	-155.0445861	318	18.4	270	4.05	No	No
97	1447	W.H. Shipman Industrial Park	E	19.6373694	-155.0451806	321	27.7	264	4.09	No	No
98	1447	W.H. Shipman Industrial Park	F	19.6375694	-155.0453056	321	27.0	264	4.10	No	No
99	1447	W.H. Shipman Industrial Park	G	19.6367917	-155.0460139	328	18.3	280	4.15	No	No
100	1447	W.H. Shipman Industrial Park	H	19.6367056	-155.0461417	329	20.3	279	4.16	No	No
109	1450	Keauhou Estates	A	19.5819528	-155.9563583	462	20.0	442	0.67	No	No
110	1450	Keauhou Estates	B	19.5806583	-155.9557000	526	20.0	507	0.70	No	No
111	1450	Keauhou Estates	C	19.5790667	-155.9551806	531	20.0	511	0.74	No	No
112	1450	Keauhou Estates	D	19.5786722	-155.9550667	536	20.0	516	0.75	No	No
113	1450	Keauhou Estates	E	19.5776972	-155.9544167	569	20.0	549	0.81	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
114	1450	Keauhou Estates	F	19.5758444	-155.9538694	576	20.0	556	0.88	No	No
115	1450	Keauhou Estates	G	19.5747583	-155.9536333	586	20.0	566	0.91	No	No
116	1450	Keauhou Estates	H	19.5729417	-155.9535806	571	20.0	551	0.90	No	No
117	1450	Keauhou Estates	I	19.5714306	-155.9539167	504	20.0	484	0.82	No	No
118	1450	Keauhou Estates	J	19.5705083	-155.9545333	451	20.0	431	0.75	No	No
119	1450	Keauhou Estates	K	19.5694583	-155.9550611	413	20.0	393	0.67	No	No
120	1450	Keauhou Estates	L	19.5682778	-155.9556833	375	20.0	355	0.58	No	No
121	1450	Keauhou Estates	M	19.5663667	-155.9562694	307	20.0	287	0.47	No	No
122	1450	Keauhou Estates	N	19.5657861	-155.9574194	247	20.0	227	0.39	No	No
123	1450	Keauhou Estates	O	19.5664333	-155.9578500	227	20.0	207	0.39	No	No
124	1450	Keauhou Estates	P	19.5675083	-155.9583361	218	20.0	198	0.43	No	No
125	1450	Keauhou Estates	Q	19.5674500	-155.9598750	163	20.0	142	0.38	Yes	No
126	1451	J.M. Kuwana Subd.	A	19.6904920	-155.0752990	182	16.8	138	1.59	No	No
127	1452	Kona Heavens Subdivision Units III	A	19.6985389	-155.9828472	1,151	23.1	1,099	3.20	Yes	No
128	1452	Kona Heavens Subdivision Units III	B	19.6998111	-155.9834278	1,140	25.0	1,086	3.22	No	No
129	1452	Kona Heavens Subdivision Units III	C	19.7009250	-155.9836167	1,135	25.0	1,109	3.27	No	No
130	1452	Kona Heavens Subdivision Units III	D	19.7026056	-155.9841333	1,129	22.4	1,106	3.32	No	No
131	1452	Kona Heavens Subdivision Units III	E	19.6994611	-155.9846500	1,052	25.0	1,026	3.15	No	No
132	1452	Kona Heavens Subdivision Units III	F	19.6993861	-155.9847750	1,052	25.0	1,026	3.14	No	No
133	1452	Kona Heavens Subdivision Units III	G	19.7003361	-155.9849250	1,036	22.6	1,012	3.18	No	No
134	1452	Kona Heavens Subdivision Units III	H	19.7013389	-155.9852472	1,047	25.0	1,021	3.21	No	No
135	1453	Kahalani Estates Subd. - Unit 2	A	19.6811806	-155.1072056	568	19.3	516	3.04	No	No
1970	1455	Francolin Place	A	19.9360770	-155.7897420	913	18.0	887	3.77	No	No
136	1456	Panaewa (Waiakea) Residence Lots Unit 3, Phase I	a	19.6930556	-155.0586111	99	24.1	53	1.74	No	No
138	1456	Panaewa (Waiakea) Residence Lots Unit 3, Phase I	b	19.6933333	-155.0583333	101	22.4	56	1.74	No	No
140	1456	Panaewa (Waiakea) Residence Lots Unit 3, Phase I	c	19.6933333	-155.0577778	103	26.3	55	1.76	No	No
142	1456	Panaewa (Waiakea) Residence Lots Unit 3, Phase I	d	19.6936111	-155.0569444	105	24.9	58	1.77	No	No
144	1456	Panaewa (Waiakea) Residence Lots Unit 3, Phase I	e	19.6936111	-155.0569444	105	25.8	57	1.77	No	No
146	1456	Panaewa (Waiakea) Residence Lots Unit 3, Phase I	f	19.6944444	-155.0572222	101	26.3	52	1.71	No	No
148	1466	Ala Kai Heights, Unit II	A	19.6747694	-155.0987750	547	19.0	497	3.07	No	No
149	1466	Ala Kai Heights, Unit II	B	19.6749083	-155.0988778	547	14.5	501	3.07	No	No
150	1466	Ala Kai Heights, Unit II	C	19.6772556	-155.0991833	520	16.3	472	2.94	No	No
151	1466	Ala Kai Heights, Unit II	D	19.6756500	-155.0998611	533	13.2	489	3.06	No	No
152	1466	Ala Kai Heights, Unit II	E	19.6757694	-155.0998750	533	18.0	484	3.05	No	No
153	1466	Ala Kai Heights, Unit II	F	19.6756306	-155.1001056	537	11.3	495	3.07	No	No
154	1466	Ala Kai Heights, Unit II	G	19.6757389	-155.1001083	537	18.5	488	3.06	No	No
155	1466	Ala Kai Heights, Unit II	H	19.6765806	-155.1001167	540	17.3	492	3.01	No	No
156	1466	Ala Kai Heights, Unit II	I	19.6773306	-155.1000722	535	18.0	485	2.97	No	No
157	1467	The Bright Hawaii Subd.	1	19.6709139	-155.0739306	307	23.8	254	2.94	No	No
158	1467	The Bright Hawaii Subd.	2	19.6697833	-155.0738361	285	23.9	231	3.01	No	2 year ¹
159	1467	The Bright Hawaii Subd.	3	19.6711500	-155.0735028	305	24.0	251	2.92	No	No
160	1467	The Bright Hawaii Subd.	4	19.6709361	-155.0730000	298	23.5	245	2.94	No	No
161	1467	The Bright Hawaii Subd.	5	19.6698083	-155.0729028	280	21.8	228	3.01	No	2 year ¹
162	1467	The Bright Hawaii Subd.	6	19.6703222	-155.0740083	298	22.5	246	2.98	No	2 year ¹
163	1467	The Bright Hawaii Subd.	7	19.6697500	-155.0739500	287	22.5	234	3.02	No	2 year ¹
164	1467	The Bright Hawaii Subd.	8	19.6698028	-155.0730222	280	22.5	227	3.01	No	2 year ¹
166	1468	Motorpool Drywell Sump	A	19.7057861	-155.0624028	44	26.5	(2)	0.90	Yes	No
1973	1471	Mokuloa Subdivision Drywells	A	20.0346410	-155.6419490	2,988	20.0	2,951	6.68	No	No
1972	1471	Mokuloa Subdivision Drywells	B	20.0322900	-155.6403920	2,910	21.2	2,872	6.78	Yes	No
1971	1471	Mokuloa Subdivision Drywells	C	20.0330400	-155.6375930	2,881	20.2	2,844	6.66	No	No
1974	1472	Hokuula Road Dry Well	A	20.0257020	-155.6718530	2,711	19.3	2,679	8.24	Yes	No
167	1474	Kamani Tree Subd. Drywells	A	19.6109056	-155.9730806	94	24.0	70	0.36	No	No
168	1474	Kamani Tree Subd. Drywells	B	19.6102944	-155.9740333	57	24.0	33	0.29	Yes	No
169	1474	Kamani Tree Subd. Drywells	C	19.6098417	-155.9747917	36	24.0	12	0.23	No	No
170	1474	Kamani Tree Subd. Drywells	D	19.6094250	-155.9754500	33	24.0	8	0.18	No	No
171	1474	Kamani Tree Subd. Drywells	E	19.6097889	-155.9736111	75	24.0	51	0.29	No	No
172	1474	Kamani Tree Subd. Drywells	F	19.6088917	-155.9749222	36	24.0	12	0.19	No	No
173	1474	Kamani Tree Subd. Drywells	G	19.6089222	-155.9751111	35	24.0	11	0.18	No	No
174	1474	Kamani Tree Subd. Drywells	H	19.6096917	-155.9718000	118	24.0	94	0.39	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
175	1474	Kamani Tree Subd. Drywells	I	19.6092250	-155.9733250	69	24.0	45	0.29	No	No
176	1474	Kamani Tree Subd. Drywells	J	19.6083944	-155.9745750	42	24.0	18	0.20	No	No
177	1475	Lanihau Commercial Park, Ph 1	1	19.6428056	-155.9943556	83	25.0	58	0.21	Yes	No
178	1475	Lanihau Commercial Park, Ph 1	2	19.6428944	-155.9944194	83	25.0	58	0.21	Yes	No
179	1477	White Sands Beach Terrace S/D Inc. I & II*	A-D	19.5925278	-155.9694361	55	20.0	35	0.11	No	No
1978	1483	Pheasant Ridge Subdivision	A	19.9392290	-155.7932100	863	25.0	829	3.45	No	No
1976	1483	Pheasant Ridge Subdivision	B	19.9409120	-155.7941780	832	24.0	799	3.33	No	No
1977	1483	Pheasant Ridge Subdivision	C	19.9410780	-155.7939600	832	25.0	799	3.33	No	No
1975	1483	Pheasant Ridge Subdivision	D	19.9424440	-155.7934970	817	25.0	783	3.29	No	No
180	1486	Pahoa Town Road Drywells	A	19.4976028	-154.9523528	626	19.6	573	5.83	No	No
181	1486	Pahoa Town Road Drywells	B	19.4939361	-154.9441944	653	18.5	602	5.79	No	No
182	1490	Puainako St. Extension	A	19.6954278	-155.0613722	88	40.0	26	1.51	No	No
183	1490	Puainako St. Extension	B	19.6955639	-155.0611361	88	54.0	12	1.51	No	No
184	1490	Puainako St. Extension	C	19.6955111	-155.0608083	90	21.0	46	1.52	No	No
185	1490	Puainako St. Extension	D	19.6958444	-155.0600472	91	29.0	40	1.53	No	No
186	1490	Puainako St. Extension	E	19.6958278	-155.0590278	92	29.0	41	1.57	No	No
187	1490	Puainako St. Extension	F	19.6961500	-155.0580861	94	56.0	16	1.59	No	No
188	1491	Makaala Street Extension	A	19.6993667	-155.0607778	80	27.0	32	1.30	Yes	No
189	1491	Makaala Street Extension	B	19.6993667	-155.0602389	83	27.0	34	1.32	Yes	No
190	1491	Makaala Street Extension	C	19.6993778	-155.0597472	83	28.0	33	1.34	Yes	No
191	1491	Makaala Street Extension	D	19.6994417	-155.0593694	83	35.0	26	1.36	No	No
192	1491	Makaala Street Extension	E	19.6995500	-155.0588306	83	28.0	33	1.37	No	No
193	1493	Kealakekua Ranch Subd., Incr. 1 - unit 2	1	19.4888528	-155.9097444	1,452	20.0	1,430	1.04	No	No
194	1493	Kealakekua Ranch Subd., Incr. 1 - unit 2	c-10	19.4866111	-155.9124694	1,283	24.1	1,258	0.80	No	No
195	1493	Kealakekua Ranch Subd., Incr. 1 - unit 2	c-11	19.4860250	-155.9126111	1,253	25.0	1,227	0.77	No	No
196	1493	Kealakekua Ranch Subd., Incr. 1 - unit 2	c-5	19.4874361	-155.9104611	1,397	27.0	1,369	0.94	No	No
197	1493	Kealakekua Ranch Subd., Incr. 1 - unit 2	c-8	19.4871889	-155.9115389	1,338	26.0	1,311	0.88	No	No
198	1493	Kealakekua Ranch Subd., Incr. 1 - unit 2	d-1	19.4864333	-155.9102778	1,402	24.9	1,375	0.90	No	No
199	1493	Kealakekua Ranch Subd., Incr. 1 - unit 2	e-1	19.4866694	-155.9131111	1,261	20.0	1,240	0.78	No	No
200	1493	Kealakekua Ranch Subd., Incr. 1 - unit 2	f-1	19.4872389	-155.9099083	1,443	20.0	1,421	0.96	No	No
201	1493	Kealakekua Ranch Subd., Incr. 1 - unit 2	g-1	19.4878167	-155.9099167	1,421	21.2	1,398	0.98	No	No
202	1493	Kealakekua Ranch Subd., Incr. 1 - unit 2	h-1	19.4858333	-155.9141889	1,166	18.3	1,147	0.69	No	No
203	1495	Kaloko Roadway Proj., Ph 1	A	19.6944300	-155.9833710	1,051	13.0	1,037	3.00	No	No
204	1495	Kaloko Roadway Proj., Ph 1	B	19.6942750	-155.9836100	1,042	13.0	1,028	2.98	No	No
205	1495	Kaloko Roadway Proj., Ph 1	C	19.6964970	-155.9862310	972	13.0	957	2.94	No	No
206	1495	Kaloko Roadway Proj., Ph 1	D	19.6962960	-155.9864640	959	13.0	945	2.92	No	No
207	1495	Kaloko Roadway Proj., Ph 1	E	19.6974320	-155.9884320	875	19.0	855	2.87	No	No
208	1495	Kaloko Roadway Proj., Ph 1	F	19.6982030	-155.9896600	825	12.0	812	2.85	No	No
209	1495	Kaloko Roadway Proj., Ph 1	G	19.6980010	-155.9897760	819	13.0	805	2.83	No	No
210	1495	Kaloko Roadway Proj., Ph 1	H	19.6983130	-155.9915490	769	20.0	748	2.76	No	No
212	1497	Ainako Terrace Subdivision	a	19.7133333	-155.1211111	626	10.0	583	2.20	No	No
214	1497	Ainako Terrace Subdivision	b	19.7127778	-155.1211111	602	28.5	542	2.21	No	No
215	1498	Kaumana Park	A	19.7004250	-155.1224694	751	21.2	697	2.75	Yes	No
216	1498	Kaumana Park	B	19.6995056	-155.1212194	730	23.1	675	2.73	No	No
217	1498	Kaumana Park	C	19.6990444	-155.1208694	724	18.9	672	2.74	No	No
218	1499	Serrao Vineyard Subd.	A	19.6977833	-155.1175500	655	18.5	604	2.65	Yes	No
219	1500	Kaumana Drive Below Iwipolena St.	A	19.6977167	-155.1164917	634	25.6	576	2.60	No	No
220	1501	Naupaka Terrace Subdivision	A	19.6997722	-155.1146472	599	14.2	554	2.42	No	No
221	1502	Pakalana Ridge Subd.	A	19.7003194	-155.1166583	646	12.3	602	2.48	No	No
222	1502	Pakalana Ridge Subd.	B	19.7002333	-155.1165333	644	16.5	595	2.48	No	No
223	1503	Victorine Subd.	A	19.7024222	-155.1154667	604	15.2	557	2.32	No	No
225	1504	Kapikookalani Subdivision	a	19.7027778	-155.1202778	701	17.9	652	2.54	No	No
227	1504	Kapikookalani Subdivision	b	19.7033333	-155.1191667	661	18.8	611	2.46	No	No
229	1504	Kapikookalani Subdivision	c	19.7041667	-155.1180556	630	19.8	578	2.36	No	No
231	1504	Kapikookalani Subdivision	d	19.7044444	-155.1177778	622	23.1	567	2.34	No	No
233	1504	Kapikookalani Subdivision	e	19.7047222	-155.1163889	593	16.7	544	2.26	Yes	No
235	1504	Kapikookalani Subdivision	f	19.7052778	-155.1152778	565	8.5	525	2.18	No	No
237	1504	Kapikookalani Subdivision	g	19.7050000	-155.1155556	575	12.3	531	2.20	No	No
238	1505	Aipuni St. Drainage Sump	A	19.7055417	-155.1121889	480	20.0	429	2.02	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
239	1506	Ainako Park Improvements	A	19.7081583	-155.1114889	437	19.1	387	1.86	No	No
240	1507	Veteran's Cemetery Expansion	A	19.7191583	-155.0927361	146	23.0	97	0.52	No	No
241	1507	Veteran's Cemetery Expansion	B	19.7185722	-155.0923222	144	3.0	115	0.55	No	No
242	1507	Veteran's Cemetery Expansion	C	19.7182417	-155.0920889	139	21.2	94	0.57	No	No
1979	1508	South Kohala View Estates	A1	20.0266660	-155.7227230	2,091	23.8	2,054	6.49	No	No
1980	1508	South Kohala View Estates	A2	20.0266690	-155.7229170	2,093	25.0	2,055	6.48	No	No
1982	1508	South Kohala View Estates	B1	20.0281780	-155.7208940	2,141	23.1	2,105	6.62	Yes	No
1981	1508	South Kohala View Estates	B2	20.0282360	-155.7209850	2,140	25.0	2,102	6.61	No	No
243	1511	Lehua Heights Subd., Unit II	A	19.6783000	-155.1030722	543	20.4	491	3.02	No	No
244	1517	McCoy Plantation Sub. Inc. 1	1	19.4782111	-155.9000833	1,213	20.0	1,191	1.27	No	No
245	1519	Kawili/Lanikaula Drywell Additions	1	19.7046083	-155.0710167	54	20.0	13	0.67	Yes	No
246	1519	Kawili/Lanikaula Drywell Additions	2	19.7070639	-155.0709000	44	20.0	6	0.53	Yes	No
247	1528	W.H. Shipman Industrial Park Phase I-B	1	19.6380167	-155.0448111	320	20.0	270	4.06	No	No
248	1528	W.H. Shipman Industrial Park Phase I-B	2	19.6381056	-155.0447056	320	20.0	270	4.05	No	No
249	1528	W.H. Shipman Industrial Park Phase I-B	3	19.6405583	-155.0465778	320	20.0	271	4.16	No	No
250	1528	W.H. Shipman Industrial Park Phase I-B	4	19.6406361	-155.0464750	320	20.0	271	4.16	No	No
251	1528	W.H. Shipman Industrial Park Phase I-B	5	19.6370667	-155.0462139	329	20.0	280	4.16	No	No
252	1528	W.H. Shipman Industrial Park Phase I-B	6	19.6370167	-155.0463333	331	20.0	281	4.17	No	No
253	1528	W.H. Shipman Industrial Park Phase I-B	7	19.6379500	-155.0468333	334	20.0	284	4.19	No	No
254	1528	W.H. Shipman Industrial Park Phase I-B	8	19.6378889	-155.0469306	335	20.0	285	4.20	No	No
255	1528	W.H. Shipman Industrial Park Phase I-B	9	19.6393500	-155.0477500	335	20.0	286	4.24	No	No
256	1528	W.H. Shipman Industrial Park Phase I-B	10	19.6410889	-155.0470444	327	20.0	277	4.19	No	No
257	1528	W.H. Shipman Industrial Park Phase I-B	11	19.6411917	-155.0471111	327	20.0	277	4.20	No	No
258	1528	W.H. Shipman Industrial Park Phase I-B	12	19.6406861	-155.0476806	329	20.0	280	4.23	No	No
1987	1530	Sunset Ridge Subdivision, Increment I	A	19.9376260	-155.7945060	845	20.0	816	3.47	No	No
1986	1530	Sunset Ridge Subdivision, Increment I	B	19.9375700	-155.7946480	844	20.0	815	3.46	No	No
1983	1530	Sunset Ridge Subdivision, Increment I	C	19.9389200	-155.7952870	814	20.0	786	3.37	No	No
1984	1530	Sunset Ridge Subdivision, Increment I	D	19.9383710	-155.7961150	817	20.0	789	3.36	No	No
1985	1530	Sunset Ridge Subdivision, Increment I	E	19.9382510	-155.7960860	817	20.0	789	3.37	No	No
259	1531	Kuakini Makai Subd., Incr. II	A	19.6149333	-155.9725417	193	20.0	173	0.57	No	No
260	1531	Kuakini Makai Subd., Incr. II	B	19.6155417	-155.9728694	205	20.0	185	0.58	No	No
261	1531	Kuakini Makai Subd., Incr. II	C	19.6154417	-155.9728083	204	20.0	184	0.58	No	No
262	1531	Kuakini Makai Subd., Incr. II	D	19.6151917	-155.9716611	208	20.0	188	0.62	No	No
263	1531	Kuakini Makai Subd., Incr. II	E	19.6151472	-155.9717389	205	20.0	185	0.62	No	No
264	1537	Veteran's Cemetery Expansion	A	19.7197917	-155.0903694	112	11.6	80	0.45	No	No
265	1537	Veteran's Cemetery Expansion	B	19.7199750	-155.0989833	104	33.1	49	0.44	No	No
266	1538	Haili Nani (Elderly Housing)	A	19.7224083	-155.0897194	70	24.7	24	0.27	Yes	No
267	1538	Haili Nani (Elderly Housing)	B	19.7220611	-155.0895278	72	25.0	26	0.30	Yes	No
268	1539	Sunrise Ridge Subdivision	A	19.7089139	-155.0958611	278	24.7	227	1.25	No	No
269	1541	Kukia Subdivision	A	19.7125111	-155.0888111	100	12.3	64	0.76	Yes	No
270	1541	Kukia Subdivision	B	19.7125917	-155.0886944	101	17.7	60	0.76	Yes	No
271	1542	Popolo Street	A	19.7114694	-155.0881278	98	11.4	63	0.75	Yes	No
272	1542	Popolo Street	B	19.7109639	-155.0878167	109	12.9	73	0.74	Yes	No
273	1542	Popolo Street	C	19.7100056	-155.0871972	120	15.3	81	0.74	No	No
274	1543	Mohouli Street Drywell	A	19.7084139	-155.0863500	135	18.4	92	0.76	No	No
275	1544	Kukuau Street Drywell	A	19.7161000	-155.0869056	82	25.8	35	0.60	No	No
276	1545	Hilo Police Dept. Hdqtrs.	A	19.7158167	-155.0849167	73	10.0	41	0.48	Yes	No
277	1546	Lono Street Drywell	a	19.7080556	-155.0777778	39	11.5	4	0.41	Yes	No
280	1547	Lanikaula Street Drywell	a	19.7063889	-155.0763889	50	24.0	4	0.50	No	No
282	1548	Olona Street Drywell	A	19.7045278	-155.0755722	60	21.3	15	0.62	No	No
283	1549	Panaewa Farm Lots, Ph. 2, Sect. I	1	19.6776722	-155.0504306	142	20.2	96	2.92	No	No
284	1549	Panaewa Farm Lots, Ph. 2, Sect. I	2	19.6770000	-155.0500333	145	20.0	99	2.98	No	No
285	1549	Panaewa Farm Lots, Ph. 2, Sect. I	3	19.6740361	-155.0492667	168	18.6	123	3.18	No	No
286	1549	Panaewa Farm Lots, Ph. 2, Sect. I	4	19.6697028	-155.0474667	158	20.0	113	3.50	No	No
287	1549	Panaewa Farm Lots, Ph. 2, Sect. I	5	19.6696444	-155.0475972	158	20.0	113	3.50	No	No
288	1549	Panaewa Farm Lots, Ph. 2, Sect. I	6	19.6688333	-155.0472111	162	20.0	116	3.56	No	No
289	1549	Panaewa Farm Lots, Ph. 2, Sect. I	7	19.6687917	-155.0472861	162	20.0	116	3.56	No	No
290	1549	Panaewa Farm Lots, Ph. 2, Sect. I	8	19.6669444	-155.0466278	176	20.7	129	3.69	No	No
291	1549	Panaewa Farm Lots, Ph. 2, Sect. I	9	19.6664694	-155.0463028	185	20.0	139	3.73	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
292	1549	Panaewa Farm Lots, Ph. 2, Sect. I	10	19.6657194	-155.0460639	187	20.0	141	3.78	No	No
293	1549	Panaewa Farm Lots, Ph. 2, Sect. I	11	19.6656778	-155.0461639	187	20.0	141	3.78	No	No
294	1549	Panaewa Farm Lots, Ph. 2, Sect. I	12	19.6650583	-155.0459472	190	20.0	144	3.83	No	No
295	1549	Panaewa Farm Lots, Ph. 2, Sect. I	13	19.6623722	-155.0449528	192	20.0	146	4.02	No	No
296	1549	Panaewa Farm Lots, Ph. 2, Sect. I	14	19.6616111	-155.0447167	196	19.6	150	4.03	No	No
297	1549	Panaewa Farm Lots, Ph. 2, Sect. I	15	19.6606306	-155.0443306	202	20.0	154	4.00	No	No
298	1549	Panaewa Farm Lots, Ph. 2, Sect. I	16	19.6582750	-155.0434389	209	20.0	162	3.94	No	No
299	1549	Panaewa Farm Lots, Ph. 2, Sect. I	17	19.6582111	-155.0435750	209	20.0	162	3.95	No	No
300	1549	Panaewa Farm Lots, Ph. 2, Sect. I	18	19.6565333	-155.0429528	206	20.0	159	3.91	No	No
301	1549	Panaewa Farm Lots, Ph. 2, Sect. I	19	19.6548417	-155.0427667	208	20.0	161	3.90	No	No
302	1549	Panaewa Farm Lots, Ph. 2, Sect. I	20	19.6679194	-155.0456944	164	20.0	118	3.66	No	No
303	1549	Panaewa Farm Lots, Ph. 2, Sect. I	21	19.6678083	-155.0456694	164	20.0	118	3.67	No	No
304	1549	Panaewa Farm Lots, Ph. 2, Sect. I	22	19.6687361	-155.0429250	169	19.5	124	3.70	No	No
305	1549	Panaewa Farm Lots, Ph. 2, Sect. I	23	19.6791039	-155.0442972	121	20.0	76	3.07	No	No
306	1549	Panaewa Farm Lots, Ph. 2, Sect. I	24	19.6789083	-155.0444000	121	18.4	78	3.07	No	No
307	1549	Panaewa Farm Lots, Ph. 2, Sect. I	25	19.6765306	-155.0435333	140	18.7	98	3.23	No	No
308	1549	Panaewa Farm Lots, Ph. 2, Sect. I	26	19.6625222	-155.0383167	189	20.2	144	3.62	No	No
309	1549	Panaewa Farm Lots, Ph. 2, Sect. I	27	19.6624444	-155.0384639	189	20.0	144	3.63	No	No
310	1549	Panaewa Farm Lots, Ph. 2, Sect. I	28	19.6720500	-155.0417861	148	20.0	104	3.55	No	No
311	1549	Panaewa Farm Lots, Ph. 2, Sect. I	29	19.6719833	-155.0418972	148	20.0	104	3.55	No	No
312	1549	Panaewa Farm Lots, Ph. 2, Sect. I	30	19.6680750	-155.0403194	175	20.0	130	3.74	No	No
313	1549	Panaewa Farm Lots, Ph. 2, Sect. I	31	19.6680417	-155.0404417	175	20.0	130	3.74	No	No
314	1549	Panaewa Farm Lots, Ph. 2, Sect. I	32	19.6673556	-155.0402222	173	20.0	128	3.73	No	No
315	1550	Puuhonua Estate s/d, ph. 1	CB1	19.7177556	-156.0004667	756	24.0	731	3.01	No	No
316	1550	Puuhonua Estate s/d, ph. 1	CB10	19.7161972	-155.9999417	764	24.0	739	2.96	No	No
317	1550	Puuhonua Estate s/d, ph. 1	CB11	19.7187500	-156.0005611	755	17.8	736	3.05	No	No
318	1550	Puuhonua Estate s/d, ph. 1	CB12	19.7178861	-156.0006278	750	24.0	725	3.01	No	No
319	1550	Puuhonua Estate s/d, ph. 1	CB13	19.7179583	-156.0007028	742	24.0	717	3.01	No	No
320	1550	Puuhonua Estate s/d, ph. 1	CB14	19.7173472	-156.0006722	744	24.0	719	2.98	No	No
321	1550	Puuhonua Estate s/d, ph. 1	CB15	19.7173861	-156.0007694	740	20.2	719	2.98	No	No
322	1550	Puuhonua Estate s/d, ph. 1	CB2	19.7177472	-155.9996722	782	22.5	759	3.04	No	No
323	1550	Puuhonua Estate s/d, ph. 1	CB3	19.7175639	-155.9994028	788	24.0	763	3.05	No	No
324	1550	Puuhonua Estate s/d, ph. 1	CB4	19.7175333	-155.9986028	814	24.0	789	3.09	No	No
325	1550	Puuhonua Estate s/d, ph. 1	CB5	19.7174361	-155.9986167	814	21.5	792	3.08	No	No
326	1550	Puuhonua Estate s/d, ph. 1	CB6	19.7167778	-156.0006472	750	24.0	725	2.95	No	No
327	1550	Puuhonua Estate s/d, ph. 1	CB7	19.7166806	-155.9996417	782	24.0	757	3.00	No	No
328	1550	Puuhonua Estate s/d, ph. 1	CB8	19.7166056	-155.9997028	779	24.0	754	2.99	No	No
329	1550	Puuhonua Estate s/d, ph. 1	CB9	19.7161861	-155.9998500	764	17.3	746	2.96	No	No
330	1550	Puuhonua Estate s/d, ph. 1	DW1	19.7172917	-156.0006111	744	24.0	719	2.98	No	No
331	1550	Puuhonua Estate s/d, ph. 1	DW2	19.7171944	-155.9998583	772	21.9	749	3.01	No	No
332	1550	Puuhonua Estate s/d, ph. 1	DW3	19.7163194	-156.0011139	730	21.8	707	2.91	No	No
333	1550	Puuhonua Estate s/d, ph. 1	DW4	19.7178500	-156.0002194	760	24.0	735	3.02	No	No
334	1550	Puuhonua Estate s/d, ph. 1	DW5	19.7161333	-155.9988306	804	24.0	779	3.01	No	No
335	1550	Puuhonua Estate s/d, ph. 1	DW6	19.7176861	-155.9992056	798	24.0	773	3.06	No	No
336	1550	Puuhonua Estate s/d, ph. 1	DW7	19.7181389	-155.9991639	798	24.0	773	3.09	No	No
337	1558	Komohana Heights Subdivision	a	19.7100000	-155.0944444	227	17.3	183	1.16	Yes	No
339	1559	Mohouli Park	A	19.7079333	-155.0912444	221	13.5	182	1.04	No	No
341	1559	Mohouli Park	B	19.7087361	-155.0910333	210	16.4	168	1.00	No	No
343	1559	Mohouli Park	C	19.7083306	-155.0904750	204	9.5	169	0.98	No	No
345	1559	Mohouli Park	D	19.7079417	-155.0899694	204	8.7	170	0.97	No	No
347	1559	Mohouli Park	E	19.7077750	-155.0897611	197	11.2	160	0.96	No	No
350	1562	Lokahi Park Drywells	a	19.6980556	-155.0727778	83	23.3	37	1.08	No	No
352	1562	Lokahi Park Drywells	b	19.6977778	-155.0727778	91	23.2	45	1.10	No	No
354	1562	Lokahi Park Drywells	c	19.6980556	-155.0727778	83	19.1	41	1.08	No	No
1990	1565	Ka La Loa Subdivision	A	20.0259550	-155.7102730	2,257	20.0	2,223	7.30	Yes	No
1989	1565	Ka La Loa Subdivision	B	20.0259090	-155.7104200	2,255	20.0	2,222	7.29	No	No
1988	1565	Ka La Loa Subdivision	C	20.0262310	-155.7115390	2,236	20.0	2,203	7.22	No	No
355	1566	Kilauea Ave. Drywell	A	19.7032750	-155.0729917	43	20.2	(1)	0.72	No	No
356	1567	Kilauea Ave. Drywell	A	19.6986417	-155.0701083	58	29.3	6	1.08	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
357	1568	Ululani St. Improvements, Part I, II	A	19.7052300	-155.0782050	72	18.8	28	0.60	No	No
359	1568	Ululani St. Improvements, Part I, II	B	19.7044510	-155.0775590	74	26.5	24	0.64	Yes	No
360	1576	Kinai Subdivision	A	19.6785194	-155.0609333	181	20.0	134	2.58	No	No
361	1576	Kinai Subdivision	B	19.6783639	-155.0611000	182	26.2	129	2.59	No	No
362	1576	Kinai Subdivision	C	19.6783972	-155.0621750	187	25.4	136	2.56	No	No
363	1576	Kinai Subdivision	D	19.6785972	-155.0620667	186	26.0	134	2.55	No	No
364	1578	Komohana Gardens Subdiv.	A	19.6909778	-155.0904194	374	21.3	323	1.84	Yes	No
365	1578	Komohana Gardens Subdiv.	B	19.6906750	-155.0904139	380	9.1	342	1.85	No	No
366	1579	Kawaihani Place Subdiv.	A	19.6868444	-155.1007389	433	11.5	390	2.47	No	No
367	1579	Kawaihani Place Subdiv.	B	19.6870667	-155.1003333	429	15.1	383	2.44	No	No
368	1579	Kawaihani Place Subdiv.	C	19.6868139	-155.0999917	431	21.0	379	2.44	No	No
369	1579	Kawaihani Place Subdiv.	D	19.6869417	-155.0991306	441	9.1	401	2.40	No	No
370	1579	Kawaihani Place Subdiv.	E	19.6848806	-155.1005972	447	10.6	406	2.57	Yes	No
371	1579	Kawaihani Place Subdiv.	F	19.6850167	-155.0989639	454	16.5	407	2.49	Yes	No
372	1579	Kawaihani Place Subdiv.	G	19.6836361	-155.0988861	459	15.7	412	2.57	Yes	No
373	1581	Waiakea Hillside Estate Subdiv.	A	19.6776611	-155.1046389	579	23.5	524	3.12	No	No
374	1581	Waiakea Hillside Estate Subdiv.	B	19.6777472	-155.1034694	561	20.2	509	3.07	No	No
375	1583	Komohana House Lots Subdiv.	A	19.6810333	-155.0884944	443	10.0	403	2.40	No	No
376	1584	Ainaola Houselots, Unit III	A	19.6758194	-155.0897500	438	20.8	387	2.76	No	No
377	1584	Ainaola Houselots, Unit III	B	19.6750583	-155.0906750	460	16.8	412	2.83	Yes	No
378	1584	Ainaola Houselots, Unit III	C	19.6749917	-155.0901167	460	17.5	412	2.82	No	No
379	1584	Ainaola Houselots, Unit III	D	19.6738056	-155.0907139	474	22.0	421	2.91	No	No
380	1585	Kuulei Subdiv.	A	19.6827278	-155.0940194	447	20.0	397	2.44	No	No
381	1585	Kuulei Subdiv.	B	19.6821972	-155.0948389	451	20.0	401	2.50	No	No
382	1585	Kuulei Subdiv.	C	19.6818000	-155.0939278	454	20.0	404	2.50	No	No
383	1585	Kuulei Subdiv.	D	19.6811472	-155.0947417	454	24.8	398	2.56	Yes	No
384	1585	Kuulei Subdiv.	E	19.6807639	-155.0928917	452	22.9	398	2.53	No	No
385	1585	Kuulei Subdiv.	F	19.6806778	-155.0937361	461	40.0	390	2.56	No	No
386	1585	Kuulei Subdiv.	G	19.6801833	-155.0946667	464	24.0	409	2.62	No	No
387	1585	Kuulei Subdiv.	H	19.6797611	-155.0936611	464	27.2	406	2.61	No	No
388	1585	Kuulei Subdiv.	I	19.6798361	-155.0927972	455	25.2	399	2.58	No	No
389	1585	Kuulei Subdiv.	J	19.6792139	-155.0945889	468	20.0	418	2.67	No	No
390	1585	Kuulei Subdiv.	K	19.6783806	-155.0936528	465	24.5	409	2.70	No	No
391	1585	Kuulei Subdiv.	L	19.6782583	-155.0925167	456	20.0	405	2.67	No	No
392	1588	Waiakea Highlands Subdiv.	A	19.6778972	-155.0929250	453	16.0	406	2.71	No	No
393	1588	Waiakea Highlands Subdiv.	B	19.6775389	-155.0929667	455	17.6	406	2.73	No	No
394	1588	Waiakea Highlands Subdiv.	C	19.6770306	-155.0925778	462	14.1	417	2.75	No	No
395	1588	Waiakea Highlands Subdiv.	D	19.6766611	-155.0924111	465	16.9	417	2.77	No	No
396	1588	Waiakea Highlands Subdiv.	E	19.6779333	-155.0922083	447	16.6	399	2.69	No	No
397	1588	Waiakea Highlands Subdiv.	F	19.6779361	-155.0924889	449	22.1	395	2.69	No	No
398	1589	Waiakea Meadows Subdiv.	1	19.6711000	-155.1006722	580	26.9	521	3.35	No	No
399	1589	Waiakea Meadows Subdiv.	2	19.6696611	-155.1009667	602	20.0	550	3.45	No	No
400	1589	Waiakea Meadows Subdiv.	3	19.6697111	-155.1005556	595	20.0	543	3.43	No	No
401	1589	Waiakea Meadows Subdiv.	4	19.6695139	-155.1009528	602	20.0	550	3.46	No	No
402	1590	Kawaihani Street	A	19.6834028	-155.0875889	418	22.0	366	2.22	No	No
403	1591	Kuhilani Street	A	19.6936639	-155.0839556	239	20.9	190	1.48	No	No
404	1591	Kuhilani Street	B	19.6932111	-155.0839222	245	20.4	197	1.51	Yes	No
405	1591	Kuhilani Street	C	19.6922722	-155.0838361	259	20.4	210	1.56	No	No
406	1591	Kuhilani Street	D	19.6913556	-155.0837833	269	18.8	222	1.62	Yes	No
407	1591	Kuhilani Street	E	19.6903083	-155.0837111	281	15.0	238	1.69	Yes	No
408	1591	Kuhilani Street	F	19.6893306	-155.0836611	290	20.0	241	1.75	No	No
409	1591	Kuhilani Street	G	19.6885611	-155.0834417	300	18.0	254	1.80	Yes	No
410	1591	Kuhilani Street	H	19.6883583	-155.0841111	321	23.6	269	1.82	No	No
411	1591	Kuhilani Street	I	19.6875194	-155.0833861	316	17.7	269	1.87	Yes	No
412	1591	Kuhilani Street	J	19.6874083	-155.0840639	326	25.2	272	1.89	Yes	No
413	1591	Kuhilani Street	K	19.6867000	-155.0833167	325	22.4	274	1.92	No	No
414	1591	Kuhilani Street	L	19.6858861	-155.0832556	335	19.8	286	1.97	Yes	No
415	1591	Kuhilani Street	M	19.6837056	-155.0830556	346	19.4	297	2.11	Yes	No
416	1591	Kuhilani Street	N	19.6837111	-155.0828917	344	23.4	292	2.11	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
417	1593	Pohakulani Street (off Puainako St.)	A	19.6923028	-155.0825917	240	16.9	195	1.54	Yes	No
418	1593	Pohakulani Street (off Puainako St.)	B	19.6922083	-155.0826778	240	11.4	201	1.54	No	No
419	1593	Pohakulani Street (off Puainako St.)	C	19.6911556	-155.0825611	236	17.0	191	1.61	No	No
420	1595	Lehua Heights Subdiv.	A	19.6821056	-155.1022222	480	18.6	430	2.78	Yes	No
422	1595	Lehua Heights Subdiv.	B	19.6821639	-155.1020917	480	21.8	426	2.77	No	No
424	1595	Lehua Heights Subdiv.	C	19.6822361	-155.1016861	474	22.7	420	2.75	No	No
426	1595	Lehua Heights Subdiv.	D	19.6822750	-155.1012583	480	18.5	430	2.73	No	No
428	1595	Lehua Heights Subdiv.	E	19.6814389	-155.1021639	496	15.7	449	2.82	Yes	No
430	1595	Lehua Heights Subdiv.	F	19.6814389	-155.1020444	496	19.0	445	2.81	Yes	No
432	1595	Lehua Heights Subdiv.	G	19.6811250	-155.1027167	520	20.0	468	2.85	No	No
434	1595	Lehua Heights Subdiv.	H	19.6808028	-155.1021111	507	20.0	455	2.85	No	No
436	1595	Lehua Heights Subdiv.	I	19.6802250	-155.1029528	516	19.5	465	2.91	No	No
438	1595	Lehua Heights Subdiv.	J	19.6798944	-155.1035528	521	20.2	469	2.95	No	No
440	1595	Lehua Heights Subdiv.	K	19.6798222	-155.1031389	526	17.0	478	2.94	Yes	No
442	1595	Lehua Heights Subdiv.	L	19.6790556	-155.1035333	541	20.7	489	3.00	No	No
444	1595	Lehua Heights Subdiv.	M	19.6790917	-155.1031389	544	17.0	495	2.98	Yes	No
446	1596	Kahalani Estates Subdiv.	A	19.6796444	-155.1079500	604	14.1	558	3.15	No	No
447	1596	Kahalani Estates Subdiv.	B	19.6797639	-155.1065389	579	12.4	534	3.09	No	No
448	1596	Kahalani Estates Subdiv.	C	19.6777694	-155.1090722	614	15.3	566	3.30	No	No
449	1596	Kahalani Estates Subdiv.	D	19.6777889	-155.1087389	612	21.7	558	3.28	No	No
450	1596	Kahalani Estates Subdiv.	E	19.6779417	-155.1067167	594	15.8	546	3.19	No	No
451	1598	Ioilani Terrace Subd.	a	19.6145222	-155.9595722	687	20.0	666	1.22	No	No
452	1598	Ioilani Terrace Subd.	b	19.6136028	-155.9583583	756	20.0	735	1.25	No	No
453	1598	Ioilani Terrace Subd.	c	19.6135222	-155.9572833	820	23.3	796	1.31	No	No
454	1598	Ioilani Terrace Subd.	d	19.6143528	-155.9563389	871	20.0	850	1.39	No	No
455	1598	Ioilani Terrace Subd.	e	19.6153222	-155.9555917	940	23.3	916	1.47	No	No
456	1598	Ioilani Terrace Subd.	f	19.6129222	-155.9574389	803	20.0	782	1.28	No	No
457	1598	Ioilani Terrace Subd.	g	19.6130167	-155.9587056	724	22.5	701	1.21	No	No
458	1599	Piihonua Meadows Subdiv., Units 1 & 2	1	19.7128361	-155.1304000	808	19.7	755	2.77	No	No
459	1599	Piihonua Meadows Subdiv., Units 1 & 2	2	19.7131000	-155.1304861	808	24.0	750	2.77	No	No
460	1599	Piihonua Meadows Subdiv., Units 1 & 2	3	19.7129667	-155.1312639	816	24.0	759	2.82	No	No
461	1599	Piihonua Meadows Subdiv., Units 1 & 2	4	19.7128028	-155.1313028	819	24.0	761	2.83	No	No
462	1599	Piihonua Meadows Subdiv., Units 1 & 2	5	19.7131806	-155.1324000	837	24.0	779	2.89	Yes	No
463	1602	Kamana Street Drywell	A	19.7105556	-155.0768361	39	17.4	(1)	0.23	Yes	No
464	1603	Manono Street	A	19.7078111	-155.0700611	39	24.7	(4)	0.50	Yes	No
1998	1604	Kipona Hills Subdivision	A	19.9407920	-155.7958190	803	20.0	775	3.26	No	No
1997	1604	Kipona Hills Subdivision	B	19.9420140	-155.7957220	795	20.0	766	3.20	No	No
1995	1604	Kipona Hills Subdivision	C	19.9426970	-155.7960300	784	20.0	756	3.16	No	No
1996	1604	Kipona Hills Subdivision	D	19.9425290	-155.7962970	785	20.0	757	3.15	No	No
1994	1604	Kipona Hills Subdivision	E	19.9431880	-155.7965460	777	20.0	749	3.11	No	No
1992	1604	Kipona Hills Subdivision	F	19.9436510	-155.7972460	772	20.0	744	3.05	No	No
1993	1604	Kipona Hills Subdivision	G	19.9434770	-155.7973470	772	20.0	744	3.06	No	No
1991	1604	Kipona Hills Subdivision	H	19.9441410	-155.7979880	768	20.0	740	3.00	No	No
465	1605	Former Waiakea Mill Camp 1 Area	A	19.7117167	-155.0751528	23	14.1	(10)	0.13	Yes	No
466	1605	Former Waiakea Mill Camp 1 Area	B	19.7115222	-155.0747889	16	11.5	(15)	0.14	Yes	No
467	1605	Former Waiakea Mill Camp 1 Area	C	19.7109083	-155.0743750	16	13.8	(17)	0.19	Yes	No
468	1605	Former Waiakea Mill Camp 1 Area	D	19.7111194	-155.0746833	18	8.1	(10)	0.17	Yes	No
469	1606	Kekuanaoa Street	A	19.7117028	-155.0721556	21	15.0	(7)	0.20	Yes	No
470	1606	Kekuanaoa Street	B	19.7118083	-155.0713111	22	13.3	(5)	0.21	Yes	No
471	1606	Kekuanaoa Street	C	19.7118389	-155.0685889	25	11.2	1	0.33	Yes	No
472	1606	Kekuanaoa Street	D	19.7118000	-155.0671861	23	15.5	(6)	0.41	Yes	No
473	1606	Kekuanaoa Street	E	19.7118028	-155.0657389	25	14.0	(3)	0.49	Yes	No
474	1606	Kekuanaoa Street	F	19.7116361	-155.0671917	22	15.0	(6)	0.41	Yes	No
475	1606	Kekuanaoa Street	G	19.7116750	-155.0657417	23	15.0	(5)	0.49	Yes	No
476	1607	Sunrise Estates Subdiv.	1	19.7070361	-155.0964306	318	20.0	272	1.36	No	No
477	1607	Sunrise Estates Subdiv.	2	19.7071722	-155.0966028	318	20.0	272	1.37	No	No
478	1607	Sunrise Estates Subdiv.	3	19.7059667	-155.0979056	346	20.0	297	1.48	No	No
479	1607	Sunrise Estates Subdiv.	4	19.7055083	-155.0987583	354	20.0	306	1.54	No	No
480	1607	Sunrise Estates Subdiv.	5	19.7040583	-155.1003222	367	20.0	318	1.67	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
481	1607	Sunrise Estates Subdiv.	6	19.7030917	-155.1008861	373	20.0	325	1.74	No	No
482	1607	Sunrise Estates Subdiv.	7	19.7012917	-155.1015500	383	20.0	333	1.85	No	No
483	1607	Sunrise Estates Subdiv.	8	19.6999250	-155.1026028	391	20.0	342	1.96	No	No
484	1607	Sunrise Estates Subdiv.	9	19.6998333	-155.1024056	391	20.0	342	1.95	No	No
485	1607	Sunrise Estates Subdiv.	10	19.6979556	-155.1035056	398	20.0	348	2.08	No	No
486	1607	Sunrise Estates Subdiv.	11	19.6966694	-155.1044917	413	20.0	363	2.19	No	No
487	1607	Sunrise Estates Subdiv.	12	19.6962500	-155.1060000	430	20.0	380	2.28	No	No
488	1607	Sunrise Estates Subdiv.	13	19.6960500	-155.1076056	447	20.0	396	2.37	No	No
489	1607	Sunrise Estates Subdiv.	14	19.6956833	-155.1089472	466	20.0	415	2.43	No	No
490	1607	Sunrise Estates Subdiv.	15	19.6945306	-155.1096611	485	20.0	434	2.53	No	No
491	1607	Sunrise Estates Subdiv.	16	19.6988194	-155.1049444	404	20.0	354	2.12	No	No
492	1607	Sunrise Estates Subdiv.	17	19.6977778	-155.1066028	422	20.0	371	2.23	No	No
493	1607	Sunrise Estates Subdiv.	18	19.6995583	-155.1064833	416	20.0	366	2.12	No	No
494	1607	Sunrise Estates Subdiv.	19	19.7007333	-155.1062194	407	20.0	357	2.04	No	No
495	1607	Sunrise Estates Subdiv.	20	19.6939667	-155.1083750	471	20.0	420	2.50	No	No
496	1607	Sunrise Estates Subdiv.	21	19.6941139	-155.1070222	455	20.0	404	2.42	No	No
497	1607	Sunrise Estates Subdiv.	22	19.6942806	-155.1056694	440	20.0	389	2.35	No	No
498	1607	Sunrise Estates Subdiv.	23	19.6944056	-155.1046083	427	20.0	377	2.29	No	No
499	1608	Sunrise Estates Subdiv.	A	19.7070333	-155.0964556	318	25.3	266	1.37	No	No
2013	1610	Sunset Ridge at Waikoloa, Phase II, Increment 1	A	19.9399070	-155.7947710	817	24.8	784	3.35	No	No
2012	1610	Sunset Ridge at Waikoloa, Phase II, Increment 2	B	19.9398070	-155.7955860	802	25.0	769	3.31	No	No
2011	1610	Sunset Ridge at Waikoloa, Phase II, Increment 3	C	19.9397840	-155.7957360	801	24.0	769	3.31	No	No
2010	1610	Sunset Ridge at Waikoloa, Phase II, Increment 4	D	19.9403180	-155.7956480	799	25.0	765	3.29	No	No
2007	1610	Sunset Ridge at Waikoloa, Phase II, Increment 5	E	19.9395140	-155.7968990	792	25.0	759	3.27	No	No
2009	1610	Sunset Ridge at Waikoloa, Phase II, Increment 6	F	19.9384470	-155.7966710	796	24.9	763	3.33	No	No
2008	1610	Sunset Ridge at Waikoloa, Phase II, Increment 7	G	19.9384950	-155.7970090	795	24.1	763	3.31	No	No
2005	1610	Sunset Ridge at Waikoloa, Phase II, Increment 8	H	19.9387950	-155.7974110	790	25.0	757	3.28	No	No
2006	1610	Sunset Ridge at Waikoloa, Phase II, Increment 9	I	19.9394350	-155.7977080	791	25.0	758	3.23	No	No
2004	1610	Sunset Ridge at Waikoloa, Phase II, Increment 10	J	19.9394720	-155.7987120	784	23.6	752	3.19	No	No
2003	1610	Sunset Ridge at Waikoloa, Phase II, Increment 11	K	19.9393620	-155.7992820	778	25.0	745	3.17	No	No
2002	1610	Sunset Ridge at Waikoloa, Phase II, Increment 12	L	19.9407170	-155.7975800	776	25.0	743	3.18	No	No
2001	1610	Sunset Ridge at Waikoloa, Phase II, Increment 13	M	19.9407100	-155.7977080	776	25.0	743	3.17	No	No
2000	1610	Sunset Ridge at Waikoloa, Phase II, Increment 14	N	19.9408180	-155.7983690	774	25.0	741	3.13	No	No
1999	1610	Sunset Ridge at Waikoloa, Phase II, Increment 15	O	19.9406920	-155.7986450	772	22.5	742	3.13	No	No
500	1613	Keahole Agricultural Park	A	19.7295500	-156.0291333	183	10.4	172	1.62	Yes	No
501	1613	Keahole Agricultural Park	B	19.7251639	-156.0298750	162	5.9	155	1.45	Yes	No
502	1613	Keahole Agricultural Park	C	19.7249417	-156.0299250	162	16.3	145	1.44	No	No
503	1613	Keahole Agricultural Park	D	19.7253972	-156.0264583	192	16.7	175	1.66	No	No
504	1613	Keahole Agricultural Park	E	19.7219500	-156.0271278	164	16.3	147	1.53	No	No
505	1613	Keahole Agricultural Park	F	19.7219500	-156.0269667	164	15.8	148	1.54	Yes	No
506	1614	Kona Industrial Subdivision	A	19.6477778	-155.9998722	53	20.0	32	0.57	Yes	No
507	1614	Kona Industrial Subdivision	B	19.6474083	-155.9991167	61	18.5	42	0.53	Yes	No
508	1614	Kona Industrial Subdivision	C	19.6469639	-155.9981778	84	18.0	66	0.48	Yes	No
509	1614	Kona Industrial Subdivision	D	19.6476028	-155.9999722	53	18.5	34	0.56	Yes	No
510	1614	Kona Industrial Subdivision	E	19.6442750	-156.0013972	39	5.5	33	0.41	Yes	No
511	1614	Kona Industrial Subdivision	F	19.6425306	-156.0011611	22	7.0	15	0.31	No	No
512	1614	Kona Industrial Subdivision	G	19.6452222	-155.9973472	80	20.0	60	0.36	Yes	No
513	1615	Keopu Subdivision	A	19.6418083	-155.9878056	168	15.0	153	0.47	No	No
514	1615	Keopu Subdivision	B	19.6417222	-155.9877750	167	14.0	152	0.47	No	No
515	1615	Keopu Subdivision	C	19.6421000	-155.9863944	180	15.0	164	0.54	No	No
522	1620	Keekee Subdiv. Incr. III - phase I	A-v	19.5143444	-155.9242444	1,400	26.0	1,373	1.82	Yes	No
524	1623	Kona Vista Subd., Phase I, Unit 1-A	1	19.6123000	-155.9635083	435	25.0	409	0.92	Yes	No
525	1623	Kona Vista Subd., Phase I, Unit 1-A	2	19.6131361	-155.9631889	476	25.0	451	0.97	Yes	No
526	1623	Kona Vista Subd., Phase I, Unit 1-A	3	19.6141306	-155.9652167	411	25.0	385	0.91	Yes	No
527	1623	Kona Vista Subd., Phase I, Unit 1-A	4	19.6142250	-155.9653444	408	25.0	382	0.91	No	No
528	1623	Kona Vista Subd., Phase I, Unit 1-A	5	19.6136250	-155.9664722	384	25.0	359	0.82	No	No
529	1623	Kona Vista Subd., Phase I, Unit 1-A	6	19.6126611	-155.9652139	393	26.0	366	0.84	No	No
530	1623	Kona Vista Subd., Phase I, Unit 1-A	7	19.6130389	-155.9629639	477	22.5	453	0.98	Yes	No
531	1628	Ruthie Subdivision	1	19.6859583	-155.0646750	103	16.0	62	2.02	Yes	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
532	1628	Ruthie Subdivision	2	19.6863000	-155.0647917	101	20.0	55	1.99	No	No
533	1628	Ruthie Subdivision	3	19.6863278	-155.0646750	101	24.2	51	2.00	Yes	No
534	1628	Ruthie Subdivision	4	19.6868944	-155.0648333	98	20.0	52	1.96	No	No
535	1628	Ruthie Subdivision	5	19.6874028	-155.0647917	98	23.3	49	1.92	No	No
536	1628	Ruthie Subdivision	6	19.6869139	-155.0647472	98	20.0	52	1.96	No	No
537	1628	Ruthie Subdivision	7	19.6861944	-155.0654278	107	20.0	62	1.99	Yes	No
2022	1633	Waikoloa Village Unit 2-A-1	1	19.9471700	-155.7819800	1,001	22.0	971	3.72	No	No
2021	1633	Waikoloa Village Unit 2-A-1	2	19.9479490	-155.7833590	955	21.6	925	3.62	No	No
2019	1633	Waikoloa Village Unit 2-A-1	3	19.9497040	-155.7836940	928	25.0	894	3.54	No	No
2017	1633	Waikoloa Village Unit 2-A-1	4	19.9499850	-155.7848550	923	25.0	890	3.46	No	No
2020	1633	Waikoloa Village Unit 2-A-1	5	19.9484290	-155.7852810	939	25.0	906	3.49	No	No
2018	1633	Waikoloa Village Unit 2-A-1	6	19.9490270	-155.7850490	927	25.0	893	3.48	No	No
2015	1633	Waikoloa Village Unit 2-A-1	7	19.9496260	-155.7860480	893	25.0	860	3.41	No	No
2016	1633	Waikoloa Village Unit 2-A-1	8	19.9496900	-155.7855620	900	25.0	867	3.43	No	No
2014	1633	Waikoloa Village Unit 2-A-1	9	19.9500060	-155.7870230	869	24.6	836	3.34	No	No
538	1636	Alawaena Road	1	19.6478150	-155.1326230	1,225	20.3	1,159	5.86	No	No
539	1638	Hoolulu Park Drywells	A	19.7196670	-155.0659490	14	13.2	(7)	0.31	Yes	No
540	1638	Hoolulu Park Drywells	B	19.7196660	-155.0660920	15	15.0	(8)	0.30	Yes	No
541	1638	Hoolulu Park Drywells	C	19.7194870	-155.0658400	12	11.0	(8)	0.32	Yes	No
542	1638	Hoolulu Park Drywells	D	19.7188220	-155.0658070	15	18.0	(11)	0.35	Yes	No
543	1638	Hoolulu Park Drywells	E	19.7188380	-155.0669030	15	14.3	(7)	0.29	No	No
544	1638	Hoolulu Park Drywells	F	19.7188060	-155.0671080	15	17.0	(10)	0.28	No	No
545	1638	Hoolulu Park Drywells	G	19.7180490	-155.0659230	15	18.0	(11)	0.37	Yes	No
546	1638	Hoolulu Park Drywells	H	19.7179530	-155.0659230	15	17.0	(10)	0.38	No	No
547	1638	Hoolulu Park Drywells	I	19.7176260	-155.0659230	16	17.0	(9)	0.39	Yes	No
548	1638	Hoolulu Park Drywells	J	19.7171056	-155.0669417	17	14.7	(6)	0.36	Yes	No
549	1638	Hoolulu Park Drywells	K	19.7163833	-155.0673778	15	10.7	(4)	0.36	Yes	No
550	1638	Hoolulu Park Drywells	L	19.7164389	-155.0668167	16	11.1	(3)	0.40	Yes	No
551	1638	Hoolulu Park Drywells	M	19.7171000	-155.0660500	17	13.5	(5)	0.41	Yes	No
552	1638	Hoolulu Park Drywells	N	19.7163056	-155.0657167	19	14.1	(3)	0.46	Yes	No
553	1638	Hoolulu Park Drywells	O	19.7153056	-155.0658333	23	18.0	(8)	0.45	Yes	No
554	1641	Kawili St. Area	A	19.7057389	-155.0686861	45	26.8	(3)	0.66	Yes	No
555	1641	Kawili St. Area	B	19.7050722	-155.0678028	51	24.0	7	0.73	Yes	No
556	1641	Kawili St. Area	C	19.7057611	-155.0676389	40	9.5	11	0.69	Yes	No
557	1641	Kawili St. Area	D	19.7057611	-155.0665028	38	10.0	8	0.73	Yes	No
558	1641	Kawili St. Area	E	19.7057278	-155.0650806	34	18.0	(4)	0.79	Yes	No
559	1641	Kawili St. Area	F	19.7058833	-155.0649778	34	25.0	(11)	0.78	Yes	No
560	1641	Kawili St. Area	G	19.7057194	-155.0649167	34	20.0	(6)	0.79	Yes	No
561	1641	Kawili St. Area	H	19.7049083	-155.0647083	36	12.7	4	0.84	Yes	No
562	1642	Kona Hillcrest S/D Park	A	19.6276250	-155.9813639	175	33.0	142	0.39	No	No
563	1643	Kona Vista Phase 1, Unit 1-B	1	19.6147222	-155.9638889	459	20.0	438	1.00	Yes	No
564	1643	Kona Vista Phase 1, Unit 1-B	2	19.6147222	-155.9641667	457	20.0	436	0.99	Yes	No
565	1643	Kona Vista Phase 1, Unit 1-B	3	19.6138889	-155.9627778	522	20.0	501	1.02	No	No
566	1643	Kona Vista Phase 1, Unit 1-B	4	19.6138889	-155.9625000	523	20.0	502	1.04	No	No
567	1643	Kona Vista Phase 1, Unit 1-B	5	19.6122222	-155.9611111	560	20.0	540	1.05	No	No
568	1643	Kona Vista Phase 1, Unit 1-B	6	19.6122222	-155.9608333	565	20.0	544	1.07	No	No
569	1643	Kona Vista Phase 1, Unit 1-B	7	19.6119444	-155.9625000	455	23.0	431	0.96	Yes	No
570	1643	Kona Vista Phase 1, Unit 1-B	8	19.6113889	-155.9613889	495	21.3	473	1.01	No	No
571	1643	Kona Vista Phase 1, Unit 1-B	9	19.6100000	-155.9597222	577	28.3	548	1.06	No	No
572	1643	Kona Vista Phase 1, Unit 1-B	10	19.6100000	-155.9605556	510	20.0	490	1.01	No	No
573	1647	Kupulau Meadows Subdivision	1	19.6756972	-155.1113528	655	24.6	598	3.50	No	No
574	1647	Kupulau Meadows Subdivision	2	19.6756972	-155.1112389	655	25.6	597	3.50	No	No
575	1647	Kupulau Meadows Subdivision	3	19.6748583	-155.1112722	652	23.6	596	3.54	No	No
576	1647	Kupulau Meadows Subdivision	4	19.6748556	-155.1111083	652	24.4	595	3.54	No	No
577	1647	Kupulau Meadows Subdivision	5	19.6758333	-155.1104833	644	24.9	587	3.46	No	No
578	1647	Kupulau Meadows Subdivision	6	19.6758611	-155.1103694	644	24.6	587	3.45	No	No
579	1647	Kupulau Meadows Subdivision	7	19.6748972	-155.1104361	641	24.5	584	3.50	No	No
580	1647	Kupulau Meadows Subdivision	8	19.6749139	-155.1102306	641	25.9	582	3.50	No	No
581	1647	Kupulau Meadows Subdivision	9	19.6755722	-155.1095389	634	23.9	578	3.43	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
582	1647	Kupulau Meadows Subdivision	10	19.6749500	-155.1095639	630	25.9	572	3.47	No	No
583	1647	Kupulau Meadows Subdivision	11	19.6750028	-155.1093583	630	24.2	573	3.45	No	No
584	1647	Kupulau Meadows Subdivision	12	19.6755806	-155.1075167	612	26.3	553	3.35	No	No
585	1647	Kupulau Meadows Subdivision	13	19.6759972	-155.1062639	597	27.5	537	3.27	No	No
586	1648	Keaukaha Residential Subdiv. Impr.	A	19.7278278	-155.0385667	16	15.0	(3)	0.52	Yes	No
587	1648	Keaukaha Residential Subdiv. Impr.	B	19.7277722	-155.0385278	16	15.0	(3)	0.52	No	No
588	1648	Keaukaha Residential Subdiv. Impr.	C	19.7266528	-155.0378833	18	16.1	(2)	0.60	No	No
589	1648	Keaukaha Residential Subdiv. Impr.	D	19.7265722	-155.0378500	18	15.2	(1)	0.60	No	No
590	1648	Keaukaha Residential Subdiv. Impr.	E	19.7254667	-155.0372000	22	19.3	(2)	0.69	No	No
591	1648	Keaukaha Residential Subdiv. Impr.	F	19.7254083	-155.0371778	22	19.6	(2)	0.69	No	No
592	1648	Keaukaha Residential Subdiv. Impr.	G	19.7242306	-155.0364972	22	19.0	(5)	0.75	No	No
593	1648	Keaukaha Residential Subdiv. Impr.	H	19.7237167	-155.0363639	20	18.3	(6)	0.78	No	No
594	1648	Keaukaha Residential Subdiv. Impr.	I	19.7236722	-155.0364583	20	17.2	(5)	0.79	No	No
595	1649	Leilani Street	A	19.7093278	-155.0657556	26	27.0	(18)	0.58	Yes	No
596	1649	Leilani Street	B	19.7094556	-155.0640500	29	10.0	1	0.66	Yes	No
597	1649	Leilani Street	C	19.7094556	-155.0636444	28	15.3	(5)	0.69	Yes	No
598	1649	Leilani Street	D	19.7092972	-155.0630944	28	11.3	(0)	0.72	Yes	No
599	1649	Leilani Street	E	19.7105056	-155.0640222	30	23.7	(11)	0.63	Yes	No
600	1652	Panaewa (Waiakea) Residence Lots Unit 5	1	19.6900000	-155.0636111	89	20.9	44	1.79	Yes	No
601	1652	Panaewa (Waiakea) Residence Lots Unit 5	2	19.6902778	-155.0627778	92	18.5	50	1.79	No	No
602	1652	Panaewa (Waiakea) Residence Lots Unit 5	3	19.6902778	-155.0622222	94	19.4	51	1.81	Yes	No
603	1652	Panaewa (Waiakea) Residence Lots Unit 5	4	19.6902778	-155.0613889	95	11.0	61	1.83	No	No
604	1652	Panaewa (Waiakea) Residence Lots Unit 5	5	19.6908333	-155.0611111	95	10.1	61	1.80	Yes	No
605	1652	Panaewa (Waiakea) Residence Lots Unit 5	6	19.6911111	-155.0622222	89	11.8	53	1.75	No	No
606	1652	Panaewa (Waiakea) Residence Lots Unit 5	7	19.6911111	-155.0627778	87	18.7	44	1.74	No	No
607	1653	Keaukaha Residential Residential Homestead Subd.	1	19.7331583	-155.0397694	6	10.0	(5)	0.21	No	No
608	1653	Keaukaha Residential Residential Homestead Subd.	2	19.7330528	-155.0397056	7	10.0	(3)	0.21	No	No
609	1653	Keaukaha Residential Residential Homestead Subd.	3	19.7325361	-155.0410667	6	14.0	(9)	0.16	No	No
610	1653	Keaukaha Residential Residential Homestead Subd.	4	19.7324167	-155.0409944	6	14.0	(9)	0.17	No	No
611	1653	Keaukaha Residential Residential Homestead Subd.	5	19.7330444	-155.0416194	4	12.0	(8)	0.11	No	No
612	1653	Keaukaha Residential Residential Homestead Subd.	6	19.7330000	-155.0417389	4	12.0	(8)	0.11	No	No
613	1653	Keaukaha Residential Residential Homestead Subd.	7	19.7317944	-155.0409389	6	11.0	(6)	0.21	No	No
614	1653	Keaukaha Residential Residential Homestead Subd.	8	19.7317500	-155.0410111	7	11.0	(4)	0.21	No	No
615	1653	Keaukaha Residential Residential Homestead Subd.	9	19.7311722	-155.0434556	4	11.0	(7)	0.13	No	No
616	1653	Keaukaha Residential Residential Homestead Subd.	10	19.7313306	-155.0435111	4	11.0	(7)	0.12	No	No
617	1653	Keaukaha Residential Residential Homestead Subd.	11	19.7305278	-155.0446333	6	11.0	(6)	0.10	No	No
618	1653	Keaukaha Residential Residential Homestead Subd.	12	19.7306778	-155.0447306	4	11.0	(7)	0.09	Yes	No
619	1653	Keaukaha Residential Residential Homestead Subd.	13	19.7302222	-155.0453028	6	12.0	(6)	0.11	No	No
620	1653	Keaukaha Residential Residential Homestead Subd.	14	19.7303500	-155.0453972	6	12.0	(6)	0.10	No	No
621	1653	Keaukaha Residential Residential Homestead Subd.	15	19.7295611	-155.0465750	12	9.0	3	0.14	No	No
622	1653	Keaukaha Residential Residential Homestead Subd.	16	19.7297167	-155.0466556	12	9.0	3	0.12	No	No
623	1653	Keaukaha Residential Residential Homestead Subd.	17	19.7306139	-155.0473056	11	10.0	1	0.07	No	No
624	1653	Keaukaha Residential Residential Homestead Subd.	18	19.7305472	-155.0474500	12	10.0	2	0.08	No	No
625	1654	Ainako Terrace Subdiv.	A	19.7133583	-155.1263639	724	14.3	677	2.51	Yes	No
626	1654	Ainako Terrace Subdiv.	B	19.7129750	-155.1251611	710	12.0	666	2.45	No	No
627	1654	Ainako Terrace Subdiv.	C	19.7116028	-155.1251694	711	13.0	666	2.49	No	No
628	1655	Kaumana Park	A	19.7013056	-155.1238667	763	21.3	709	2.78	No	No
629	1655	Kaumana Park	B	19.7009250	-155.1234139	754	21.0	701	2.78	No	No
630	1656	Lawelawe Circle	A	19.6999444	-155.1248306	754	16.5	705	2.89	No	No
631	1657	Akolea Plantation	A	19.7005861	-155.1294500	813	18.6	762	3.10	No	No
632	1657	Akolea Plantation	B	19.6992389	-155.1294944	803	20.7	750	3.16	No	No
633	1658	Kaumana Estates Subdivision	A	19.6765556	-155.1651778	1,658	11.3	1,585	5.96	Yes	No
634	1658	Kaumana Estates Subdivision	B	19.6788722	-155.1618917	1,580	5.0	1,516	5.69	No	No
635	1658	Kaumana Estates Subdivision	C	19.6781333	-155.1597361	1,547	11.0	1,477	5.61	No	No
636	1658	Kaumana Estates Subdivision	D	19.6799972	-155.1590722	1,529	8.2	1,462	5.50	No	No
637	1659	Wilder Road	A	19.6853694	-155.1415028	1,121	13.4	1,061	4.37	No	No
638	1659	Wilder Road	B	19.6847194	-155.1416694	1,127	20.2	1,060	4.40	No	No
639	1660	Pamoho Subdivision	A	19.6844306	-155.1352889	1,039	23.0	973	4.11	No	No
640	1660	Pamoho Subdivision	B	19.6827444	-155.1354389	1,037	19.0	975	4.20	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
641	1661	Kalote Place	A	19.6611639	-155.1353000	1,194	19.0	1,129	5.31	No	10 year
642	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	1	19.6347806	-155.0502861	367	20.0	316	4.44	No	No
643	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	2	19.6347611	-155.0504167	369	20.0	319	4.45	No	No
644	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	3	19.6351833	-155.0503444	365	20.0	315	4.44	No	No
645	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	4	19.6351722	-155.0504833	369	20.0	319	4.45	No	No
646	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	5	19.6368222	-155.0511611	360	20.0	310	4.48	No	No
647	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	6	19.6367722	-155.0512889	360	20.0	310	4.49	No	No
648	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	7	19.6345250	-155.0520222	393	20.0	343	4.56	No	No
649	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	8	19.6344972	-155.0521750	396	20.0	345	4.57	No	No
650	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	9	19.6349167	-155.0520972	389	20.0	339	4.56	No	No
651	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	10	19.6348972	-155.0522750	390	20.0	340	4.57	No	No
652	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	11	19.6358111	-155.0522806	375	20.0	325	4.56	No	No
653	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	12	19.6357833	-155.0524028	376	20.0	326	4.57	No	No
654	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	13	19.6361361	-155.0525472	368	20.0	318	4.58	No	No
655	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	14	19.6359694	-155.0474472	336	20.0	287	4.25	No	No
656	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	15	19.6361417	-155.0475583	336	20.0	287	4.25	No	No
657	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	16	19.6352083	-155.0488167	339	20.0	289	4.34	No	No
658	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	17	19.6350389	-155.0493611	347	20.0	297	4.38	Yes	No
659	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	18	19.6352528	-155.0493250	345	20.0	294	4.37	No	No
660	1662	W.H. Shipman Industrial Park, Incr. I, Phase I-C	19	19.6347139	-155.0514139	386	20.0	336	4.51	No	No
661	1663	Alawaena Highlands Subdivision	A	19.6494600	-155.1263500	1,096	14.8	1,039	5.52	No	10 year
662	1664	Captain Cook Elderly Housing	1	19.4886417	-155.9054639	1,632	20.0	1,610	1.24	No	No
675	1666	Panaewa Farm Lots, Phase 3	12L	19.6790972	-155.0390694	131	20.0	88	3.28	No	No
676	1666	Panaewa Farm Lots, Phase 3	12R	19.6790778	-155.0390028	131	20.0	88	3.28	No	No
665	1666	Panaewa Farm Lots, Phase 3	14L	19.6706972	-155.0371806	137	20.0	93	3.52	No	No
666	1666	Panaewa Farm Lots, Phase 3	14R	19.6706000	-155.0371750	137	20.0	93	3.52	No	No
669	1666	Panaewa Farm Lots, Phase 3	25L	19.6760000	-155.0379833	140	20.0	97	3.49	No	No
670	1666	Panaewa Farm Lots, Phase 3	25R	19.6759750	-155.0378889	140	20.0	97	3.49	No	No
673	1666	Panaewa Farm Lots, Phase 3	34L	19.6735333	-155.0370694	137	21.0	93	3.51	No	No
674	1666	Panaewa Farm Lots, Phase 3	34R	19.6735056	-155.0369889	137	21.0	93	3.51	No	No
677	1666	Panaewa Farm Lots, Phase 3	3L	19.6815611	-155.0400083	130	20.4	87	3.11	No	No
678	1666	Panaewa Farm Lots, Phase 3	3R	19.6816417	-155.0398694	130	20.4	87	3.12	No	No
667	1666	Panaewa Farm Lots, Phase 3	40L	19.6716111	-155.0363750	138	19.0	95	3.47	No	No
668	1666	Panaewa Farm Lots, Phase 3	40R	19.6715472	-155.0362750	138	19.0	95	3.46	No	No
663	1666	Panaewa Farm Lots, Phase 3	51L	19.6687722	-155.0353306	123	19.5	79	3.41	No	No
664	1666	Panaewa Farm Lots, Phase 3	51R	19.6687556	-155.0352444	123	19.5	79	3.40	No	No
671	1666	Panaewa Farm Lots, Phase 3	57L	19.6676861	-155.0349500	106	20.0	62	3.39	No	No
672	1666	Panaewa Farm Lots, Phase 3	57R	19.6677028	-155.0348889	106	20.0	62	3.38	No	No
679	1666	Panaewa Farm Lots, Phase 3	7L	19.6699056	-155.0395111	141	19.6	96	3.67	No	No
680	1666	Panaewa Farm Lots, Phase 3	7R	19.6698722	-155.0394167	141	19.6	96	3.67	No	No
681	1669	Lunapule Professional Plaza	1	19.6262333	-155.9867667	18	20.0	(2)	0.07	No	No
682	1670	Ohia Development	A	19.6979917	-155.9654417	2,030	25.0	1,818	4.12	No	No
683	1670	Ohia Development	B	19.6987778	-155.9651750	2,060	23.6	1,853	4.17	No	No
2023	1672	Paniolo Estates	1	19.9481290	-155.7921360	812	24.4	779	3.13	No	No
2024	1672	Paniolo Estates	2	19.9481420	-155.7920620	816	24.0	784	3.13	No	No
2025	1672	Paniolo Estates	3	19.9486980	-155.7918140	824	27.2	789	3.12	No	No
2026	1672	Paniolo Estates	4	19.9497820	-155.7914950	820	23.0	789	3.10	No	No
2027	1672	Paniolo Estates	5	19.9493660	-155.7915550	823	23.0	792	3.11	No	No
2028	1672	Paniolo Estates	6	19.9497320	-155.7914160	821	23.0	790	3.10	No	No
2029	1672	Paniolo Estates	7	19.9499670	-155.7910020	827	26.8	792	3.12	No	No
2030	1672	Paniolo Estates	8	19.9500240	-155.7901000	837	23.1	805	3.17	No	No
2031	1672	Paniolo Estates	9	19.9505790	-155.7888580	841	25.7	807	3.22	No	No
2032	1672	Paniolo Estates	10	19.9499440	-155.7901300	838	23.0	807	3.17	No	No
2033	1672	Paniolo Estates	11	19.9490750	-155.7901610	845	26.9	810	3.20	No	No
2034	1672	Paniolo Estates	12	19.9490980	-155.7887700	878	27.2	843	3.27	No	No
2035	1672	Paniolo Estates	13	19.9477620	-155.7893200	854	26.4	820	3.29	No	No
2036	1672	Paniolo Estates	14	19.9482400	-155.7904570	848	27.6	812	3.21	No	No
2037	1672	Paniolo Estates	15	19.9471890	-155.7902120	839	21.6	810	3.27	No	No
2038	1672	Paniolo Estates	16	19.9470590	-155.7903030	838	23.0	807	3.27	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
2039	1672	Paniolo Estates	17	19.9469670	-155.7909990	837	23.0	805	3.23	No	No
684	1675	West Hawaii Today Offices and Production Facility	1	19.6418278	-156.0007000	21	20.0	1	0.26	Yes	No
2054	1686	Henry Street Improvements (Drywells)	A	19.6435420	-155.9890410	127	20.0	107	0.46	No	No
2045	1686	Henry Street Improvements (Drywells)	AA	19.6418340	-155.9918970	71	20.0	51	0.24	Yes	No
2044	1686	Henry Street Improvements (Drywells)	AB	19.6416950	-155.9921570	64	20.0	43	0.22	No	No
2043	1686	Henry Street Improvements (Drywells)	AC	19.6413440	-155.9925900	48	20.0	28	0.18	No	No
2042	1686	Henry Street Improvements (Drywells)	AD	19.6410820	-155.9927530	40	20.0	19	0.16	No	No
2041	1686	Henry Street Improvements (Drywells)	AE	19.6408870	-155.9928190	37	20.0	17	0.15	No	No
2040	1686	Henry Street Improvements (Drywells)	AF	19.6407270	-155.9928620	33	20.0	12	0.15	No	No
2055	1686	Henry Street Improvements (Drywells)	B	19.6435150	-155.9889080	127	20.0	107	0.47	No	No
2056	1686	Henry Street Improvements (Drywells)	C	19.6434440	-155.9887900	127	20.0	107	0.47	No	No
2057	1686	Henry Street Improvements (Drywells)	D	19.6433860	-155.9886740	127	20.0	107	0.47	No	No
2058	1686	Henry Street Improvements (Drywells)	E	19.6434500	-155.9890660	127	20.0	107	0.45	No	No
2059	1686	Henry Street Improvements (Drywells)	F	19.6434570	-155.9889710	127	20.0	107	0.46	No	No
2060	1686	Henry Street Improvements (Drywells)	G	19.6434080	-155.9888910	127	20.0	107	0.46	No	No
2061	1686	Henry Street Improvements (Drywells)	H	19.6433510	-155.9887440	127	20.0	107	0.47	No	No
2062	1686	Henry Street Improvements (Drywells)	I	19.6433960	-155.9889700	127	20.0	107	0.46	No	No
2063	1686	Henry Street Improvements (Drywells)	J	19.6433270	-155.9888700	127	20.0	107	0.46	No	No
2064	1686	Henry Street Improvements (Drywells)	K	19.6433860	-155.9890500	127	20.0	107	0.45	No	No
2065	1686	Henry Street Improvements (Drywells)	L	19.6433550	-155.9891300	127	20.0	107	0.45	No	No
2066	1686	Henry Street Improvements (Drywells)	M	19.6433230	-155.9890450	127	20.0	107	0.45	No	No
2067	1686	Henry Street Improvements (Drywells)	N	19.6432750	-155.9889610	127	20.0	107	0.45	No	No
2068	1686	Henry Street Improvements (Drywells)	O	19.6432730	-155.9891060	127	20.0	107	0.45	No	No
2069	1686	Henry Street Improvements (Drywells)	P	19.6432490	-155.9891790	127	20.0	107	0.44	No	No
2070	1686	Henry Street Improvements (Drywells)	Q	19.6432050	-155.9890810	127	20.0	107	0.44	No	No
2071	1686	Henry Street Improvements (Drywells)	R	19.6431530	-155.9892260	127	20.0	107	0.43	No	No
2053	1686	Henry Street Improvements (Drywells)	S	19.6431300	-155.9894820	126	20.0	106	0.42	No	No
2052	1686	Henry Street Improvements (Drywells)	T	19.6432040	-155.9896920	124	20.0	104	0.41	No	No
2051	1686	Henry Street Improvements (Drywells)	U	19.6428830	-155.9898960	116	20.0	95	0.39	No	No
2050	1686	Henry Street Improvements (Drywells)	V	19.6426520	-155.9902700	105	20.0	85	0.36	No	No
2049	1686	Henry Street Improvements (Drywells)	W	19.6425760	-155.9904690	99	20.0	79	0.35	No	No
2048	1686	Henry Street Improvements (Drywells)	X	19.6424190	-155.9908080	92	20.0	72	0.32	No	No
2047	1686	Henry Street Improvements (Drywells)	Y	19.6422300	-155.9912020	85	20.0	65	0.29	Yes	No
2046	1686	Henry Street Improvements (Drywells)	Z	19.6419870	-155.9916110	78	20.0	57	0.26	No	No
685	1690	Oonaona Drive Drywell	A	19.6920010	-155.9730040	1,512	25.0	1,324	3.50	No	No
686	1690	Oonaona Drive Drywell	B	19.6920000	-155.9730000	1,512	18.0	1,332	3.50	No	No
687	1694	Kawaiilani Grove Subdiv.	1	19.6829667	-155.1013806	466	25.8	408	2.70	No	No
688	1695	Kawaiilani Street Drywells	1	19.6847500	-155.0685278	136	24.7	85	2.03	Yes	No
689	1695	Kawaiilani Street Drywells	2	19.6848139	-155.0677139	134	27.4	81	2.04	No	No
690	1695	Kawaiilani Street Drywells	3	19.6848611	-155.0671611	131	24.1	81	2.04	No	No
691	1695	Kawaiilani Street Drywells	4	19.6845472	-155.0689667	146	31.3	88	2.04	Yes	No
692	1695	Kawaiilani Street Drywells	5	19.6845694	-155.0684389	136	32.0	78	2.04	Yes	No
693	1695	Kawaiilani Street Drywells	6	19.6846470	-155.0676290	141	27.1	88	2.05	No	No
694	1695	Kawaiilani Street Drywells	7	19.6845917	-155.0682139	140	25.0	89	2.04	No	No
695	1695	Kawaiilani Street Drywells	8	19.6846056	-155.0679917	140	25.0	89	2.05	No	No
696	1695	Kawaiilani Street Drywells	9	19.6846167	-155.0677667	135	23.7	85	2.05	No	No
697	1700	Lako Street	1	19.6113889	-155.9658528	316	19.5	296	0.76	Yes	No
698	1700	Lako Street	2	19.6112389	-155.9658000	314	20.0	294	0.76	Yes	No
699	1713	Kaloko Roadway Impr. Proj.	1	19.6916667	-156.0205556	143	20.0	123	0.89	Yes	No
700	1713	Kaloko Roadway Impr. Proj.	2	19.6916667	-156.0205556	143	20.0	123	0.89	Yes	No
701	1713	Kaloko Roadway Impr. Proj.	3	19.6922222	-156.0188889	183	20.0	163	1.01	Yes	No
702	1713	Kaloko Roadway Impr. Proj.	4	19.6927778	-156.0172222	230	20.0	210	1.12	No	No
703	1713	Kaloko Roadway Impr. Proj.	5	19.6927778	-156.0172222	230	20.0	210	1.12	No	No
704	1713	Kaloko Roadway Impr. Proj.	6	19.6925000	-156.0155556	269	20.0	248	1.22	No	No
705	1713	Kaloko Roadway Impr. Proj.	7	19.6922222	-156.0140278	292	20.0	272	1.31	No	No
706	1713	Kaloko Roadway Impr. Proj.	8	19.6922222	-156.0140278	292	20.0	272	1.31	No	No
707	1713	Kaloko Roadway Impr. Proj.	9	19.6915278	-156.0122222	313	20.0	292	1.41	No	No
708	1713	Kaloko Roadway Impr. Proj.	10	19.6915278	-156.0122222	313	20.0	292	1.41	No	No
709	1713	Kaloko Roadway Impr. Proj.	11	19.6902778	-156.0105556	322	20.0	302	1.43	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
710	1713	Kaloko Roadway Impr. Proj.	12	19.6894444	-156.0094444	340	20.0	320	1.45	No	No
711	1713	Kaloko Roadway Impr. Proj.	13	19.6894444	-156.0094444	340	20.0	320	1.45	No	No
712	1713	Kaloko Roadway Impr. Proj.	14	19.6888889	-156.0069444	378	20.0	357	1.56	Yes	No
713	1713	Kaloko Roadway Impr. Proj.	15	19.6894444	-156.0050000	413	20.0	393	1.69	Yes	No
714	1713	Kaloko Roadway Impr. Proj.	16	19.6894444	-156.0050000	413	20.0	393	1.69	Yes	No
715	1713	Kaloko Roadway Impr. Proj.	17	19.6905556	-156.0030556	451	20.0	430	1.84	No	No
716	1713	Kaloko Roadway Impr. Proj.	18	19.6905556	-156.0030556	451	20.0	430	1.84	No	No
717	1713	Kaloko Roadway Impr. Proj.	19	19.6927778	-156.0011111	517	20.0	496	2.03	Yes	No
718	1713	Kaloko Roadway Impr. Proj.	20	19.6927778	-156.0011111	517	20.0	496	2.03	Yes	No
719	1713	Kaloko Roadway Impr. Proj.	21	19.6950000	-155.9991667	569	20.8	547	2.22	No	No
720	1713	Kaloko Roadway Impr. Proj.	22	19.6961111	-155.9980556	588	20.9	567	2.32	Yes	No
721	1713	Kaloko Roadway Impr. Proj.	23	19.6972222	-155.9963889	615	20.5	593	2.46	No	No
722	1713	Kaloko Roadway Impr. Proj.	24	19.6980556	-155.9941667	661	21.9	639	2.61	No	No
723	1722	Naniakea Subdivision	1	19.6936111	-155.0766667	165	20.0	120	1.37	No	No
724	1722	Naniakea Subdivision	2	19.6933333	-155.0772222	171	20.0	125	1.40	No	No
725	1722	Naniakea Subdivision	3	19.6927778	-155.0772222	171	20.0	125	1.43	No	No
726	1722	Naniakea Subdivision	4	19.6925000	-155.0769444	170	20.0	123	1.45	No	No
727	1722	Naniakea Subdivision	5	19.6919444	-155.0769444	168	20.0	121	1.49	No	No
728	1722	Naniakea Subdivision	6	19.6916667	-155.0772222	174	20.0	127	1.51	No	No
729	1722	Naniakea Subdivision	7	19.6916667	-155.0766667	165	20.0	118	1.51	No	No
730	1722	Naniakea Subdivision	8	19.6916667	-155.0763889	163	20.0	116	1.51	No	No
731	1722	Naniakea Subdivision	9	19.6913889	-155.0769444	172	20.0	125	1.53	No	No
732	1722	Naniakea Subdivision	10	19.6911111	-155.0769444	175	20.0	128	1.55	No	No
733	1722	Naniakea Subdivision	11	19.6911111	-155.0769444	175	20.0	128	1.55	No	No
734	1722	Naniakea Subdivision	12	19.6905556	-155.0766667	176	20.0	129	1.58	Yes	No
735	1722	Naniakea Subdivision	13	19.6902778	-155.0769444	182	20.0	135	1.60	Yes	No
1950	1722	Naniakea Subdivision	14	19.6898720	-155.0763820	178	20.0	131	1.63	Yes	No
736	1724	Nani Malio Subdivision	1	19.8330167	-155.1046972	507	25.0	454	1.20	Yes	2 year ¹
737	1724	Nani Malio Subdivision	2	19.8331417	-155.1047000	507	25.5	453	1.21	Yes	2 year ¹
738	1724	Nani Malio Subdivision	3	19.8336222	-155.1056694	528	25.5	474	1.28	Yes	2 year ¹
739	1724	Nani Malio Subdivision	4	19.8329889	-155.1051194	515	25.5	461	1.22	Yes	2 year ¹
740	1724	Nani Malio Subdivision	5	19.8330917	-155.1051250	515	25.5	461	1.23	Yes	2 year ¹
741	1725	Hale Kula Road	1	19.5846889	-155.0578556	753	17.5	701	6.22	No	No
742	1725	Hale Kula Road	2	19.5848222	-155.0593167	760	20.0	706	6.29	No	No
743	1726	Mt. View Gardens Subdiv.	1	19.5569694	-155.0983583	1,335	23.5	1,252	9.48	No	No
744	1726	Mt. View Gardens Subdiv.	2	19.5565056	-155.0989028	1,345	11.0	1,275	9.52	No	No
745	1726	Mt. View Gardens Subdiv.	3	19.5559694	-155.0995528	1,368	13.1	1,296	9.58	No	No
746	1727	Watt Park	1	19.5491667	-155.1063194	1,487	13.8	1,410	10.21	No	No
747	1728	Hawaiiki Subdivision	1	19.5696917	-155.0819583	1,102	17.2	1,033	8.10	No	No
748	1730	Kurtistown Baseyard	1	19.5919306	-155.0592139	668	25.0	609	6.02	No	No
749	1731	Keaau Police Station Parking Lot	1	19.6206306	-155.0399889	364	14.9	318	4.03	No	No
750	1732	Ohe St. Dry Wells	1	19.6224222	-155.0356028	300	17.7	252	3.72	No	No
751	1732	Ohe St. Dry Wells	2	19.6200972	-155.0361722	314	18.5	265	3.81	No	No
752	1733	Lanikaula St.	1	19.7071500	-155.0639194	33	29.0	(13)	0.77	Yes	No
753	1734	Halekaula St.	1	19.7045806	-155.0633833	39	30.5	(11)	0.92	Yes	No
754	1735	Railroad Ave.	1	19.7005583	-155.0587944	77	13.3	43	1.32	No	No
755	1736	Prince Kuhio Plaza	1	19.6991667	-155.0648306	71	25.8	23	1.18	Yes	No
756	1736	Prince Kuhio Plaza	2	19.6991667	-155.0637861	75	24.0	29	1.21	Yes	No
757	1736	Prince Kuhio Plaza	3	19.6991667	-155.0630472	77	22.0	34	1.23	Yes	No
758	1736	Prince Kuhio Plaza	4	19.6991667	-155.0620361	78	23.3	34	1.27	Yes	No
759	1736	Prince Kuhio Plaza	5	19.6991667	-155.0614833	80	25.5	33	1.29	Yes	No
760	1736	Prince Kuhio Plaza	6	19.6984333	-155.0615278	81	23.5	37	1.33	Yes	No
761	1736	Prince Kuhio Plaza	7	19.6975139	-155.0615444	83	22.8	39	1.38	Yes	No
762	1736	Prince Kuhio Plaza	8	19.6963889	-155.0615389	85	24.0	39	1.45	Yes	No
763	1736	Prince Kuhio Plaza	9	19.6954944	-155.0620361	86	24.0	40	1.49	No	No
764	1736	Prince Kuhio Plaza	10	19.6954500	-155.0625222	85	25.5	37	1.47	No	No
765	1736	Prince Kuhio Plaza	11	19.6954167	-155.0628778	85	24.2	38	1.47	No	No
766	1736	Prince Kuhio Plaza	12	19.6953556	-155.0635611	84	22.5	38	1.45	No	No
767	1736	Prince Kuhio Plaza	13	19.6952972	-155.0642306	81	23.5	34	1.44	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
768	1736	Prince Kuhio Plaza	14	19.6947611	-155.0643222	78	20.0	35	1.47	No	No
769	1737	Panaewa House & Farm Lots (North)	1	19.6960806	-155.0570889	99	12.0	65	1.63	No	No
770	1737	Panaewa House & Farm Lots (North)	2	19.6942222	-155.0563917	99	12.7	65	1.76	No	No
771	1737	Panaewa House & Farm Lots (North)	3	19.6952083	-155.0567667	112	13.9	77	1.69	No	No
772	1737	Panaewa House & Farm Lots (North)	4	19.6914417	-155.0554056	112	12.6	77	1.95	No	No
773	1737	Panaewa House & Farm Lots (North)	5	19.6925972	-155.0501694	112	12.8	77	2.11	No	No
774	1737	Panaewa House & Farm Lots (North)	6	19.6924278	-155.0501111	113	12.9	78	2.12	No	No
775	1737	Panaewa House & Farm Lots (North)	7	19.6913306	-155.0488389	111	13.6	76	2.23	No	No
776	1737	Panaewa House & Farm Lots (North)	8	19.6901889	-155.0594833	101	11.7	66	1.89	No	No
777	1737	Panaewa House & Farm Lots (North)	9	19.6878444	-155.0586889	114	13.0	76	2.05	No	No
778	1738	Panaewa House & Farm Lots (South)	1	19.6845722	-155.0574528	134	11.0	99	2.29	No	No
779	1738	Panaewa House & Farm Lots (South)	2	19.6844556	-155.0574028	134	11.5	98	2.30	No	No
780	1738	Panaewa House & Farm Lots (South)	3	19.6827820	-155.0568390	135	12.4	97	2.42	No	No
781	1738	Panaewa House & Farm Lots (South)	4	19.6798056	-155.0592917	153	13.5	114	2.54	No	No
782	1738	Panaewa House & Farm Lots (South)	5	19.6771972	-155.0551556	163	10.0	127	2.81	No	No
783	1738	Panaewa House & Farm Lots (South)	6	19.6847639	-155.0530139	142	13.0	105	2.42	No	No
784	1738	Panaewa House & Farm Lots (South)	7	19.6841278	-155.0528472	143	11.6	107	2.46	Yes	No
785	1738	Panaewa House & Farm Lots (South)	8	19.6836306	-155.0525444	144	12.0	107	2.50	No	No
786	1738	Panaewa House & Farm Lots (South)	9	19.6804111	-155.0515222	144	10.5	109	2.73	No	No
787	1738	Panaewa House & Farm Lots (South)	10	19.6802972	-155.0512750	144	13.0	106	2.74	No	No
788	1738	Panaewa House & Farm Lots (South)	11	19.6786917	-155.0507833	141	12.3	103	2.85	No	No
789	1738	Panaewa House & Farm Lots (South)	12	19.6827190	-155.0457640	115	13.2	78	2.81	No	No
790	1738	Panaewa House & Farm Lots (South)	13	19.6827540	-155.0456460	115	12.7	79	2.81	No	No
791	1739	Palai Hihi St.	1	19.6826028	-155.0613500	123	20.0	78	2.31	Yes	No
792	1739	Palai Hihi St.	2	19.6813139	-155.0617111	153	24.0	103	2.39	Yes	No
793	1740	Panaewa Agricultural Park	1	19.6669361	-155.0527444	197	20.0	151	3.53	No	No
794	1740	Panaewa Agricultural Park	2	19.6648222	-155.0533972	210	10.0	172	3.64	No	No
795	1740	Panaewa Agricultural Park	3	19.6630583	-155.0527667	224	10.0	187	3.77	No	No
796	1740	Panaewa Agricultural Park	4	19.6620028	-155.0467417	188	10.0	151	3.99	No	No
797	1740	Panaewa Agricultural Park	5	19.6593750	-155.0487583	207	16.0	163	4.10	No	No
798	1740	Panaewa Agricultural Park	6	19.6579028	-155.0503583	208	14.5	166	4.16	No	No
799	1740	Panaewa Agricultural Park	7	19.6553083	-155.0450944	214	15.5	170	4.05	No	No
800	1741	Hale O Lani Subdiv. Area	1	19.6718667	-155.0880194	448	20.0	397	2.98	No	No
801	1741	Hale O Lani Subdiv. Area	2	19.6713361	-155.0870583	453	22.0	400	3.00	Yes	No
802	1741	Hale O Lani Subdiv. Area	3	19.6707111	-155.0879250	456	20.0	405	3.06	No	2 year ¹
803	1741	Hale O Lani Subdiv. Area	4	19.6707222	-155.0869917	459	20.0	408	3.04	No	2 year ¹
804	1741	Hale O Lani Subdiv. Area	5	19.6707278	-155.0868694	459	20.0	408	3.04	Yes	2 year ¹
805	1741	Hale O Lani Subdiv. Area	6	19.6696389	-155.0878194	461	20.0	410	3.13	Yes	10 year
806	1741	Hale O Lani Subdiv. Area	7	19.6684889	-155.0870750	464	26.1	407	3.19	No	No
807	1741	Hale O Lani Subdiv. Area	8	19.6726861	-155.0846806	422	20.0	372	2.88	No	No
808	1741	Hale O Lani Subdiv. Area	9	19.6723417	-155.0845472	417	20.0	367	2.90	No	No
809	1741	Hale O Lani Subdiv. Area	10	19.6720944	-155.0837917	416	23.5	362	2.90	No	No
810	1741	Hale O Lani Subdiv. Area	11	19.6697222	-155.0844222	436	20.0	385	3.07	No	2 year ¹
811	1742	Waiakea-Uka Gym (Near)	1	19.6656333	-155.1055806	636	22.3	581	3.84	No	No
812	1743	Komohana Kai III	1	19.6084472	-155.9656167	280	25.2	254	0.67	No	No
813	1743	Komohana Kai III	2	19.6083778	-155.9657000	280	20.0	259	0.66	No	No
814	1744	Kalanianaole St.	1	19.7235333	-155.0619556	6	9.0	(5)	0.02	No	No
815	1744	Kalanianaole St.	2	19.7240556	-155.0611750	6	9.1	(5)	0.04	No	No
816	1745	Captain Cook Elderly Housing	1	19.4880556	-155.9063889	1,581	20.0	1,559	1.17	No	No
817	1748	Road C Extension	1	19.6122222	-155.9572222	779	26.0	752	1.27	No	No
818	1749	Iwalani Street (North)	1	19.6893750	-155.0810361	242	20.0	195	1.70	Yes	No
819	1750	Iwalani Street (South)	1	19.6792722	-155.0802278	328	20.0	280	2.38	Yes	No
820	1751	Muny Links Homesites	1	19.6890861	-155.0768750	196	20.2	149	1.69	Yes	No
821	1751	Muny Links Homesites	2	19.6865750	-155.0766417	216	20.9	167	1.86	Yes	No
822	1751	Muny Links Homesites	3	19.6847833	-155.0765056	228	18.7	182	1.98	No	No
823	1751	Muny Links Homesites	4	19.6841528	-155.0763611	235	21.0	186	2.02	Yes	No
824	1752	Puainako Homesites Subdiv.	1	19.6941667	-155.0745472	123	23.3	74	1.34	No	No
825	1752	Puainako Homesites Subdiv.	2	19.6925194	-155.0741500	139	18.7	94	1.45	Yes	No
826	1753	Palai Aina Subdiv.	1	19.6797056	-155.0659389	158	25.5	106	2.41	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
827	1753	Palai Aina Subdiv.	2	19.6780806	-155.0658278	169	26.3	116	2.52	No	No
828	1754	Olu Street	1	19.6880694	-155.0665583	119	13.5	80	1.84	No	No
829	1755	Panaewa (Waiakea) Residential Lots	1	19.6943861	-155.0613083	87	20.0	45	1.58	No	No
830	1755	Panaewa (Waiakea) Residential Lots	2	19.6935833	-155.0611556	90	20.0	48	1.63	No	No
831	1755	Panaewa (Waiakea) Residential Lots	3	19.6934722	-155.0612194	90	20.0	47	1.63	No	No
832	1755	Panaewa (Waiakea) Residential Lots	4	19.6926333	-155.0610972	92	20.0	49	1.69	No	No
833	1755	Panaewa (Waiakea) Residential Lots	5	19.6925111	-155.0611667	92	20.0	48	1.69	No	No
834	1755	Panaewa (Waiakea) Residential Lots	6	19.6918694	-155.0602167	99	20.0	55	1.76	No	No
835	1755	Panaewa (Waiakea) Residential Lots	7	19.6918806	-155.0601250	99	21.0	54	1.76	No	No
836	1757	Kinoole St. (Near Food Fair)	1	19.6911306	-155.0697000	129	20.0	84	1.58	No	No
837	1761	Hoonanea St.	1	19.6843306	-155.0727750	211	20.0	163	2.02	No	No
838	1761	Hoonanea St.	2	19.6838278	-155.0726472	208	20.0	161	2.05	No	No
839	1761	Hoonanea St.	3	19.6811500	-155.0718250	223	20.0	176	2.24	No	No
840	1761	Hoonanea St.	4	19.6811667	-155.0717444	223	20.0	176	2.24	No	No
841	1761	Hoonanea St.	5	19.6818194	-155.0705361	200	20.0	153	2.21	No	No
842	1761	Hoonanea St.	6	19.6817306	-155.0704722	200	20.0	153	2.21	No	No
843	1761	Hoonanea St.	7	19.6797139	-155.0700389	205	20.0	158	2.35	No	No
844	1762	Yamashita Subdiv.	1	19.6784778	-155.0907944	435	16.0	388	2.61	No	No
845	1762	Yamashita Subdiv.	2	19.6781028	-155.0904833	430	28.0	372	2.63	Yes	No
846	1762	Yamashita Subdiv.	3	19.6777194	-155.0910944	420	22.5	367	2.67	No	No
847	1762	Yamashita Subdiv.	4	19.6777917	-155.0905583	420	19.0	370	2.65	Yes	No
848	1762	Yamashita Subdiv.	5	19.6789083	-155.0895694	431	18.0	382	2.56	No	No
849	1764	Ainaola House Lots	1	19.6836056	-155.0829889	345	20.5	296	2.12	Yes	No
850	1764	Ainaola House Lots	2	19.6833500	-155.0821000	335	17.8	288	2.12	Yes	No
851	1764	Ainaola House Lots	3	19.6832750	-155.0821444	335	18.0	288	2.13	Yes	No
852	1764	Ainaola House Lots	4	19.6825222	-155.0832750	355	19.5	306	2.20	No	No
853	1764	Ainaola House Lots	5	19.6810528	-155.0838278	358	23.2	305	2.30	Yes	No
854	1764	Ainaola House Lots	6	19.6806333	-155.0838111	358	24.8	304	2.33	No	No
855	1764	Ainaola House Lots	7	19.6801694	-155.0828611	349	20.0	300	2.35	Yes	No
856	1764	Ainaola House Lots	8	19.6788944	-155.0827556	347	20.0	297	2.43	No	No
857	1764	Ainaola House Lots	9	19.6789444	-155.0822667	345	20.0	295	2.42	Yes	No
858	1764	Ainaola House Lots	10	19.6790111	-155.0816083	343	20.0	294	2.41	No	No
859	1765	Hilo Municipal Golf Course	1	19.6839639	-155.0774111	250	21.5	201	2.04	No	No
860	1765	Hilo Municipal Golf Course	2	19.6840000	-155.0770778	247	18.5	201	2.04	No	No
861	1765	Hilo Municipal Golf Course	3	19.6838472	-155.0773583	250	21.0	201	2.05	No	No
862	1765	Hilo Municipal Golf Course	4	19.6837028	-155.0771806	256	15.7	212	2.06	No	No
863	1765	Hilo Municipal Golf Course	5	19.6805444	-155.0767167	281	15.0	238	2.27	No	No
2081	1766	Puu Lani Ranch - Phase II	#4B1	19.8198290	-155.8325740	2,204	21.0	2,172	6.26	No	No
2083	1766	Puu Lani Ranch - Phase II	#4B2	19.8197030	-155.8325050	2,205	22.0	2,172	6.26	No	No
2079	1766	Puu Lani Ranch - Phase II	#4C	19.8207450	-155.8315240	2,203	21.0	2,171	6.29	No	No
2074	1766	Puu Lani Ranch - Phase II	#4D	19.8205810	-155.8323150	2,198	20.5	2,166	6.25	No	No
2084	1766	Puu Lani Ranch - Phase II	#5B1	19.8186490	-155.8339400	2,209	22.0	2,177	6.21	No	No
2085	1766	Puu Lani Ranch - Phase II	#5B2	19.8185760	-155.8339310	2,210	22.0	2,177	6.21	No	No
2087	1766	Puu Lani Ranch - Phase II	#6C1	19.8167870	-155.8361770	2,224	21.0	2,191	6.13	No	No
2088	1766	Puu Lani Ranch - Phase II	#6C2	19.8168810	-155.8361160	2,224	21.0	2,191	6.13	No	No
2076	1766	Puu Lani Ranch - Phase II	#6D	19.8181230	-155.8355320	2,202	20.8	2,171	6.13	No	No
2075	1766	Puu Lani Ranch - Phase II	#6E	19.8183390	-155.8362330	2,199	21.0	2,167	6.08	No	No
2072	1766	Puu Lani Ranch - Phase II	#6F	19.8182750	-155.8371990	2,185	22.0	2,152	6.03	No	No
2100	1766	Puu Lani Ranch - Phase II	#D1	19.8163150	-155.8354530	2,237	21.0	2,204	6.19	No	No
2090	1766	Puu Lani Ranch - Phase II	#D10	19.8179570	-155.8335280	2,225	21.0	2,193	6.25	No	No
2089	1766	Puu Lani Ranch - Phase II	#D11	19.8179750	-155.8333390	2,225	21.0	2,193	6.26	No	No
2091	1766	Puu Lani Ranch - Phase II	#D12	19.8179840	-155.8331870	2,225	21.0	2,193	6.27	No	No
2099	1766	Puu Lani Ranch - Phase II	#D2	19.8165120	-155.8354640	2,237	21.0	2,204	6.18	No	No
2096	1766	Puu Lani Ranch - Phase II	#D3	19.8166490	-155.8354360	2,236	21.0	2,203	6.18	No	No
2094	1766	Puu Lani Ranch - Phase II	#D4	19.8167750	-155.8353650	2,236	20.8	2,203	6.18	No	No
2093	1766	Puu Lani Ranch - Phase II	#D5	19.8169380	-155.8352690	2,236	21.0	2,203	6.18	No	No
2095	1766	Puu Lani Ranch - Phase II	#D6	19.8170900	-155.8351550	2,236	21.0	2,203	6.18	No	No
2097	1766	Puu Lani Ranch - Phase II	#D7	19.8172020	-155.8350650	2,236	21.0	2,203	6.19	No	No
2098	1766	Puu Lani Ranch - Phase II	#D8	19.8173470	-155.8349580	2,236	20.5	2,204	6.19	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
2092	1766	Puu Lani Ranch - Phase II	#D9	19.8175910	-155.8345720	2,226	21.0	2,194	6.20	No	No
2101	1766	Puu Lani Ranch - Phase II	1#2/4A	19.8195800	-155.8304130	2,238	9.5	2,217	6.39	No	No
2103	1766	Puu Lani Ranch - Phase II	1#2/4B	19.8182530	-155.8301010	2,244	9.5	2,223	6.45	No	No
2104	1766	Puu Lani Ranch - Phase II	1#2A1	19.8168160	-155.8310050	2,282	9.5	2,260	6.44	No	No
2102	1766	Puu Lani Ranch - Phase II	1#2A2	19.8182750	-155.8299690	2,244	9.5	2,223	6.46	No	No
2080	1766	Puu Lani Ranch - Phase II	1#4C	19.8206700	-155.8313640	2,204	9.5	2,183	6.31	No	No
2086	1766	Puu Lani Ranch - Phase II	1#4F	19.8187560	-155.8330150	2,214	9.5	2,193	6.26	No	No
2082	1766	Puu Lani Ranch - Phase II	1#4G	19.8199550	-155.8326820	2,205	9.5	2,184	6.25	No	No
2105	1766	Puu Lani Ranch - Phase II	1#5/4	19.8181400	-155.8317190	2,239	9.5	2,219	6.36	No	No
2077	1766	Puu Lani Ranch - Phase II	1#6D	19.8178940	-155.8355690	2,202	9.5	2,182	6.14	No	No
2078	1766	Puu Lani Ranch - Phase II	1#6E	19.8179000	-155.8356760	2,202	9.5	2,182	6.13	No	No
2073	1766	Puu Lani Ranch - Phase II	1#6G	19.8177310	-155.8378430	2,194	9.5	2,175	6.01	No	No
864	1773	Heahea heights Subdivision	A	19.6745861	-155.0824194	366	26.9	309	2.72	Yes	No
865	1773	Heahea heights Subdivision	B	19.6754611	-155.0824889	353	25.1	298	2.66	No	No
866	1773	Heahea heights Subdivision	C	19.6763694	-155.0825722	344	30.1	284	2.60	No	No
867	1773	Heahea heights Subdivision	D	19.6781000	-155.0826472	344	27.6	287	2.49	Yes	No
868	1773	Heahea heights Subdivision	E	19.6780917	-155.0827417	344	27.1	287	2.49	Yes	No
869	1773	Heahea heights Subdivision	G	19.6745528	-155.0823111	368	29.6	308	2.72	No	No
870	1773	Heahea heights Subdivision	H	19.6761806	-155.0820694	342	25.5	287	2.61	No	No
871	1779	Kaloko Water Supply Tanks	1	19.6916667	-156.0216667	125	20.0	105	0.83	No	No
872	1779	Kaloko Water Supply Tanks	2	19.6886111	-156.0083333	362	20.0	342	1.48	Yes	No
873	1779	Kaloko Water Supply Tanks	3	19.6973360	-155.9959440	628	20.0	607	2.48	No	No
874	1781	Subdivision of TMK: 7-4-07:05	A	19.6808861	-155.9832417	892	24.3	866	2.59	No	No
875	1781	Subdivision of TMK: 7-4-07:05	B	19.6809222	-155.9831222	892	23.9	867	2.60	No	No
876	1782	Subdivision of TMK: 7-4-07:01	1	19.6771150	-155.9862780	753	19.8	732	2.33	Yes	No
877	1782	Subdivision of TMK: 7-4-07:01	2	19.6771650	-155.9861760	753	19.8	732	2.33	Yes	No
878	1782	Subdivision of TMK: 7-4-07:01	3	19.6770610	-155.9824980	880	20.3	858	2.57	No	No
879	1782	Subdivision of TMK: 7-4-07:01	4	19.6771030	-155.9823750	880	20.0	858	2.57	Yes	No
880	1785	West Hawaii Sanitary Landfill	1	19.8922306	-155.8827694	160	20.0	137	1.32	No	No
881	1785	West Hawaii Sanitary Landfill	2	19.8922306	-155.8827694	160	20.0	137	1.32	No	No
882	1786	Henry St. Intersection Part B	1	19.6408333	-155.9927778	37	25.0	12	0.15	No	No
883	1792	West Hawaii Sanitary Landfill Package A	1	19.8922694	-155.8831972	162	20.0	139	1.29	No	No
884	1792	West Hawaii Sanitary Landfill Package A	2	19.8918389	-155.8827389	165	20.0	142	1.33	No	No
885	1792	West Hawaii Sanitary Landfill Package A	3	19.8918639	-155.8835028	163	20.0	140	1.28	No	No
886	1806	Keaukaha Residential Subd.	1	19.7277778	-155.0502778	14	21.7	(10)	0.27	No	No
887	1806	Keaukaha Residential Subd.	2	19.7277778	-155.0502778	14	20.0	(8)	0.27	No	No
888	1806	Keaukaha Residential Subd.	3	19.7277778	-155.0502778	14	20.0	(8)	0.27	No	No
889	1806	Keaukaha Residential Subd.	4	19.7277778	-155.0502778	14	20.0	(8)	0.27	No	No
890	1806	Keaukaha Residential Subd.	5	19.7286111	-155.0486111	15	20.0	(8)	0.23	No	No
891	1806	Keaukaha Residential Subd.	6	19.7286111	-155.0486111	15	20.0	(8)	0.23	No	No
892	1806	Keaukaha Residential Subd.	7	19.7294444	-155.0469444	14	20.0	(6)	0.14	No	No
893	1806	Keaukaha Residential Subd.	8	19.7294444	-155.0469444	14	20.0	(6)	0.14	No	No
894	1806	Keaukaha Residential Subd.	9	19.7258333	-155.0486111	21	22.5	(5)	0.41	No	No
895	1806	Keaukaha Residential Subd.	10	19.7258333	-155.0486111	21	20.0	(3)	0.41	No	No
896	1806	Keaukaha Residential Subd.	11	19.7269444	-155.0463889	17	20.0	(7)	0.31	No	No
897	1806	Keaukaha Residential Subd.	12	19.7269444	-155.0463889	17	19.3	(6)	0.31	No	No
898	1806	Keaukaha Residential Subd.	13	19.7272222	-155.0455556	17	22.7	(9)	0.30	No	No
899	1806	Keaukaha Residential Subd.	14	19.7272222	-155.0455556	17	20.0	(7)	0.30	No	No
900	1806	Keaukaha Residential Subd.	15	19.7283333	-155.0433333	14	22.0	(12)	0.28	No	No
901	1806	Keaukaha Residential Subd.	16	19.7283333	-155.0433333	14	20.0	(10)	0.28	No	No
902	1806	Keaukaha Residential Subd.	17	19.7291667	-155.0416667	12	20.0	(11)	0.30	No	No
903	1806	Keaukaha Residential Subd.	18	19.7291667	-155.0416667	12	20.0	(11)	0.30	No	No
904	1806	Keaukaha Residential Subd.	19	19.7297222	-155.0402778	12	20.0	(8)	0.36	No	No
905	1806	Keaukaha Residential Subd.	20	19.7297222	-155.0402778	12	19.0	(7)	0.36	No	No
2107	1810	Lihipali Road	1	20.0283400	-155.6754950	2,892	60.0	2,818	8.24	No	No
2106	1810	Lihipali Road	2	20.0287700	-155.6745750	2,917	60.0	2,843	8.18	No	No
906	1813	Sunrise Ridge Subd. Increment II	a	19.7075000	-155.0980556	319	26.2	265	1.39	No	No
907	1813	Sunrise Ridge Subd. Increment II	b	19.7080556	-155.0977778	307	25.2	254	1.35	No	No
908	1813	Sunrise Ridge Subd. Increment II	c	19.7080556	-155.0977778	307	24.5	255	1.35	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
909	1813	Sunrise Ridge Subd. Increment II	d	19.7088889	-155.0972222	285	24.6	233	1.28	No	No
910	1816	Kaloko Light Industrial Subd.	D1	19.6875000	-156.0166667	196	20.0	175	1.01	Yes	No
911	1816	Kaloko Light Industrial Subd.	D2	19.6872222	-156.0175000	188	20.0	168	0.96	Yes	No
912	1816	Kaloko Light Industrial Subd.	D3	19.6869444	-156.0183333	173	20.0	152	0.91	Yes	No
913	1816	Kaloko Light Industrial Subd.	F1	19.6916667	-156.0172222	217	20.0	197	1.10	Yes	No
914	1816	Kaloko Light Industrial Subd.	F2	19.6916667	-156.0172222	217	20.0	197	1.10	Yes	No
915	1816	Kaloko Light Industrial Subd.	F3	19.6894444	-156.0166667	212	20.0	192	1.10	No	No
916	1816	Kaloko Light Industrial Subd.	F4	19.6894444	-156.0166667	212	20.0	192	1.10	No	No
917	1816	Kaloko Light Industrial Subd.	F5	19.6875000	-156.0163889	202	20.0	182	1.02	Yes	No
918	1816	Kaloko Light Industrial Subd.	F6	19.6875000	-156.0163889	202	20.0	182	1.02	Yes	No
919	1818	Keopuka Mauka	1	19.4971917	-155.9185472	1,343	25.0	1,317	1.21	No	No
920	1818	Keopuka Mauka	2	19.4973222	-155.9186083	1,345	25.0	1,319	1.22	No	No
921	1821	Hokulani Heights	NA	19.7019444	-155.1230556	763	22.0	709	2.71	No	No
922	1824	Kula Ridge Subdivision	1	19.6877778	-155.0991667	434	27.0	376	2.35	No	No
923	1824	Kula Ridge Subdivision	2	19.6888889	-155.0991667	424	27.0	367	2.30	No	No
924	1824	Kula Ridge Subdivision	3	19.6897222	-155.0994444	418	27.0	361	2.27	No	No
925	1824	Kula Ridge Subdivision	4	19.6905556	-155.0994444	395	27.0	338	2.23	No	No
926	1835	Keahole Heights Subdivision	1	19.7197222	-155.9886111	1,207	28.7	1,178	3.68	No	No
927	1835	Keahole Heights Subdivision	2	19.7197222	-155.9894444	1,159	26.7	1,131	3.64	No	No
928	1835	Keahole Heights Subdivision	3	19.7200000	-155.9902778	1,133	27.8	1,104	3.61	No	No
929	1835	Keahole Heights Subdivision	4	19.7202778	-155.9908333	1,122	27.4	1,094	3.59	No	No
930	1837	Villages of Laiopua	1	19.6731333	-156.0030611	266	23.9	241	1.20	Yes	No
931	1837	Villages of Laiopua	2	19.6731806	-156.0028833	269	20.7	247	1.21	Yes	No
932	1837	Villages of Laiopua	3	19.6743028	-156.0032056	291	25.8	264	1.21	No	No
933	1837	Villages of Laiopua	4	19.6743361	-156.0030667	298	20.1	277	1.22	No	No
934	1837	Villages of Laiopua	5	19.6728194	-156.0028333	266	20.2	245	1.21	No	No
935	1837	Villages of Laiopua	6	19.6728250	-156.0029861	263	25.5	237	1.20	Yes	No
936	1837	Villages of Laiopua	7	19.6719833	-156.0028472	262	20.3	241	1.20	Yes	No
937	1837	Villages of Laiopua	8	19.6719833	-156.0028472	262	25.9	235	1.20	Yes	No
938	1837	Villages of Laiopua	9	19.6715861	-156.0026444	265	20.0	244	1.21	No	No
939	1837	Villages of Laiopua	10	19.6715194	-156.0027250	262	25.2	236	1.20	Yes	No
940	1837	Villages of Laiopua	11	19.6708778	-156.0022694	267	20.5	246	1.23	Yes	No
941	1837	Villages of Laiopua	12	19.6708389	-156.0023556	265	24.5	239	1.22	Yes	No
942	1837	Villages of Laiopua	13	19.6698194	-156.0015139	277	20.7	256	1.27	Yes	No
943	1837	Villages of Laiopua	14	19.6697667	-156.0016389	274	25.0	249	1.26	Yes	No
944	1837	Villages of Laiopua	15	19.6731333	-156.0026056	273	20.6	252	1.23	No	No
945	1837	Villages of Laiopua	16	19.6729694	-156.0025750	271	20.4	250	1.23	No	No
946	1837	Villages of Laiopua	17	19.6735250	-156.0012250	309	21.0	287	1.32	No	No
947	1837	Villages of Laiopua	18	19.6733639	-156.0011944	305	21.4	282	1.32	No	No
948	1837	Villages of Laiopua	19	19.6741694	-156.0000000	339	20.7	318	1.41	No	No
949	1837	Villages of Laiopua	20	19.6739917	-155.9999111	322	21.3	300	1.41	No	No
950	1837	Villages of Laiopua	21	19.6749611	-155.9989361	389	20.2	368	1.49	Yes	No
951	1837	Villages of Laiopua	22	19.6748194	-155.9987639	389	20.3	368	1.50	No	No
952	1837	Villages of Laiopua	23	19.6750528	-155.9980972	402	19.9	382	1.54	No	No
953	1837	Villages of Laiopua	24	19.6748528	-155.9982444	398	21.0	377	1.53	No	No
954	1837	Villages of Laiopua	25	19.6741528	-155.9972417	416	20.1	395	1.58	Yes	No
955	1837	Villages of Laiopua	26	19.6740750	-155.9974750	412	20.8	391	1.57	Yes	No
956	1837	Villages of Laiopua	27	19.6730750	-155.9970194	415	20.3	394	1.58	No	No
957	1837	Villages of Laiopua	28	19.6730472	-155.9972639	411	20.1	390	1.57	No	No
958	1837	Villages of Laiopua	29	19.6722778	-155.9969750	409	20.4	388	1.58	Yes	No
959	1837	Villages of Laiopua	30	19.6723139	-155.9972139	407	20.5	385	1.56	No	No
960	1837	Villages of Laiopua	31	19.6715333	-155.9969056	402	20.8	381	1.58	No	No
961	1837	Villages of Laiopua	32	19.6715222	-155.9971361	400	20.6	378	1.56	Yes	No
962	1837	Villages of Laiopua	33	19.6705722	-155.9966472	396	18.0	377	1.59	Yes	No
963	1837	Villages of Laiopua	34	19.6705389	-155.9968750	390	19.9	369	1.58	Yes	No
964	1837	Villages of Laiopua	35	19.6695833	-156.0011583	283	20.4	261	1.29	Yes	No
965	1837	Villages of Laiopua	36	19.6693750	-156.0010917	283	20.2	262	1.30	No	No
966	1837	Villages of Laiopua	37	19.6701833	-156.0001611	305	21.1	283	1.36	Yes	No
967	1837	Villages of Laiopua	38	19.6699333	-156.0000583	305	20.5	283	1.37	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
968	1837	Villages of Laiopua	39	19.6707722	-155.9987528	351	20.1	331	1.45	No	No
969	1837	Villages of Laiopua	40	19.6705750	-155.9987028	349	20.3	328	1.46	No	No
970	1837	Villages of Laiopua	41	19.6709139	-155.9979417	372	19.9	351	1.51	No	No
971	1837	Villages of Laiopua	42	19.6707278	-155.9979389	369	21.2	347	1.51	No	No
972	1837	Villages of Laiopua	43	19.6710056	-155.9973972	384	21.2	363	1.54	Yes	No
973	1837	Villages of Laiopua	44	19.6708361	-155.9973556	383	20.0	362	1.55	No	No
974	1837	Villages of Laiopua	45	19.6732944	-156.0028000	274	22.0	252	1.22	Yes	No
975	1837	Villages of Laiopua	46	19.6734167	-156.0028083	273	20.9	251	1.22	Yes	No
976	1837	Villages of Laiopua	47	19.6735194	-156.0028167	276	22.4	253	1.22	No	No
977	1837	Villages of Laiopua	48	19.6736583	-156.0028333	277	21.8	255	1.22	No	No
978	1837	Villages of Laiopua	49	19.6738111	-156.0028583	278	21.6	256	1.22	Yes	No
979	1837	Villages of Laiopua	50	19.6739194	-156.0028639	285	19.9	265	1.22	Yes	No
980	1837	Villages of Laiopua	51	19.6739194	-156.0028639	285	21.5	263	1.22	Yes	No
981	1837	Villages of Laiopua	52	19.6739194	-156.0028639	285	20.5	264	1.22	Yes	No
982	1837	Villages of Laiopua	53	19.6746167	-156.0030722	307	23.6	283	1.22	No	No
983	1837	Villages of Laiopua	54	19.6722556	-156.0027278	265	23.5	240	1.21	Yes	No
984	1837	Villages of Laiopua	55	19.6720694	-156.0027028	265	20.0	244	1.21	Yes	No
985	1837	Villages of Laiopua	56	19.6720694	-156.0027028	265	20.0	244	1.21	Yes	No
986	1837	Villages of Laiopua	57	19.6712389	-156.0024083	266	21.8	244	1.22	No	No
987	1837	Villages of Laiopua	58	19.6701083	-156.0016500	274	20.4	253	1.26	No	No
988	1837	Villages of Laiopua	59	19.6751944	-155.9982278	401	22.0	378	1.54	No	No
989	1837	Villages of Laiopua	60	19.6750861	-155.9981139	402	20.3	381	1.54	No	No
990	1837	Villages of Laiopua	61	19.6750000	-155.9980083	404	24.1	379	1.55	No	No
991	1837	Villages of Laiopua	62	19.6749222	-155.9979417	407	21.0	385	1.55	No	No
992	1837	Villages of Laiopua	63	19.6746806	-155.9976417	411	19.2	391	1.57	Yes	No
993	1837	Villages of Laiopua	64	19.6744861	-155.9974722	413	20.2	393	1.57	No	No
994	1837	Villages of Laiopua	65	19.6741389	-155.9972111	416	21.9	393	1.59	Yes	No
995	1837	Villages of Laiopua	66	19.6725000	-155.9969722	413	20.1	392	1.58	Yes	No
996	1837	Villages of Laiopua	67	19.6707139	-155.9966639	396	19.3	375	1.59	No	No
997	1837	Villages of Laiopua	68	19.6705167	-155.9966028	396	19.3	375	1.59	Yes	No
998	1837	Villages of Laiopua	69	19.6744444	-156.0028028	310	20.4	289	1.24	No	No
999	1837	Villages of Laiopua	70	19.6687000	-155.9894417	573	25.0	547	2.02	No	No
1000	1837	Villages of Laiopua	71	19.6679722	-155.9889806	580	24.7	555	1.97	No	No
1005	1838	Pacific Heights Subd. Incr. IV	Area10	19.7103990	-155.0923480	176	50.0	100	1.03	No	No
1003	1838	Pacific Heights Subd. Incr. IV	Area4	19.7093240	-155.0924970	216	50.0	140	1.07	No	No
1004	1838	Pacific Heights Subd. Incr. IV	Area6	19.7097530	-155.0913250	185	50.0	109	0.98	No	No
1001	1838	Pacific Heights Subd. Incr. IV	Area7	19.7100550	-155.0925010	187	54.0	107	1.05	No	No
1002	1838	Pacific Heights Subd. Incr. IV	Area8	19.7096090	-155.0922120	194	47.0	121	1.04	No	No
1006	1854	McCoy Plantation Subdiv.	1	19.4816667	-155.9022917	1,385	17.0	1,366	1.20	No	No
1007	1855	Kailua-Keauhou Middle Road	1	19.5876389	-155.9540278	677	18.0	659	0.95	No	No
1008	1857	Kona Hillcrest Subdiv.	1	19.6275000	-155.9794444	208	13.0	195	0.49	No	No
1009	1857	Kona Hillcrest Subdiv.	2	19.6277778	-155.9786111	212	13.0	199	0.54	No	No
1010	1857	Kona Hillcrest Subdiv.	3	19.6288889	-155.9777778	276	12.0	264	0.63	No	No
1011	1857	Kona Hillcrest Subdiv.	4	19.6283333	-155.9763889	328	10.0	317	0.69	No	No
1012	1858	Hualalai Road Impr.	1	19.6375417	-155.9927306	15	10.4	5	0.07	No	No
1013	1858	Hualalai Road Impr.	2	19.6373889	-155.9926194	15	7.8	7	0.07	No	No
1014	1858	Hualalai Road Impr.	3	19.6373694	-155.9927833	15	10.0	5	0.06	No	No
1015	1859	Kishi Subdivision	1	19.5158528	-155.9230417	1,458	12.0	1,444	1.93	No	No
1016	1859	Kishi Subdivision	2	19.5163639	-155.9208194	1,543	14.0	1,415	2.07	Yes	No
1017	1861	Ainawaiwai Subdivision	1	19.6662278	-155.1020472	610	27.4	550	3.69	No	No
1018	1861	Ainawaiwai Subdivision	2	19.6669917	-155.1021111	610	27.1	551	3.65	No	No
1019	1861	Ainawaiwai Subdivision	3	19.6677111	-155.1022583	609	26.4	550	3.61	No	No
1020	1861	Ainawaiwai Subdivision	4	19.6678194	-155.1019722	606	25.9	548	3.59	No	No
1021	1861	Ainawaiwai Subdivision	5	19.6679278	-155.1020278	606	27.2	547	3.59	No	No
1022	1861	Ainawaiwai Subdivision	6	19.6678639	-155.1013556	601	27.0	541	3.57	No	No
1023	1861	Ainawaiwai Subdivision	7	19.6680528	-155.1013528	601	25.4	543	3.56	Yes	No
1024	1861	Ainawaiwai Subdivision	8	19.6679111	-155.1004972	595	25.9	537	3.54	Yes	No
1025	1861	Ainawaiwai Subdivision	9	19.6680222	-155.1005028	595	26.7	536	3.54	No	No
1026	1861	Ainawaiwai Subdivision	10	19.6688333	-155.1004806	598	26.1	540	3.49	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1027	1861	Ainawaiwai Subdivision	11	19.6687472	-155.1003889	597	28.2	536	3.49	No	No
1028	1861	Ainawaiwai Subdivision	12	19.6677722	-155.1003944	594	26.3	535	3.55	No	No
1029	1861	Ainawaiwai Subdivision	13	19.6677722	-155.1003083	594	26.7	535	3.54	No	No
1030	1861	Ainawaiwai Subdivision	14	19.6667861	-155.1002306	595	25.8	537	3.60	No	No
1031	1861	Ainawaiwai Subdivision	15	19.6668278	-155.1003250	595	26.3	537	3.60	No	No
1032	1861	Ainawaiwai Subdivision	16	19.6663556	-155.1012028	605	25.9	547	3.66	No	No
1033	1861	Ainawaiwai Subdivision	17	19.6664500	-155.1011722	604	26.2	545	3.65	No	No
1034	1861	Ainawaiwai Subdivision	18	19.6654389	-155.1025778	617	25.0	560	3.76	No	No
1076	1862	Makuu Farm and Agr. Lots: Phase I	A-101+50L	19.5481556	-154.9640500	386	20.0	336	3.66	No	No
1077	1862	Makuu Farm and Agr. Lots: Phase I	A-103+50.03I	19.5487972	-154.9642611	379	20.0	329	3.64	No	No
1078	1862	Makuu Farm and Agr. Lots: Phase I	A-103+50.03F	19.5487972	-154.9642611	379	20.0	329	3.64	No	No
1079	1862	Makuu Farm and Agr. Lots: Phase I	A-104+40	19.5490639	-154.9644222	380	20.0	331	3.63	No	No
1080	1862	Makuu Farm and Agr. Lots: Phase I	A-105+68L	19.5494472	-154.9647639	383	24.5	330	3.64	No	No
1081	1862	Makuu Farm and Agr. Lots: Phase I	A-106+35L	19.5497111	-154.9651250	383	20.0	334	3.64	No	No
1036	1862	Makuu Farm and Agr. Lots: Phase I	A-11+50R	19.5306194	-154.9677806	493	20.0	441	4.68	No	No
1037	1862	Makuu Farm and Agr. Lots: Phase I	A-13+16.67L	19.5307556	-154.9671833	491	20.0	438	4.65	No	No
1038	1862	Makuu Farm and Agr. Lots: Phase I	A-13+16.67R	19.5307556	-154.9671833	491	20.0	438	4.65	No	No
1040	1862	Makuu Farm and Agr. Lots: Phase I	A-14+80L	19.5308222	-154.9667000	488	20.0	436	4.62	No	No
1039	1862	Makuu Farm and Agr. Lots: Phase I	A-14+80R	19.5308222	-154.9667000	488	20.0	436	4.62	No	No
1041	1862	Makuu Farm and Agr. Lots: Phase I	A-17+00R	19.5309056	-154.9662056	489	20.0	437	4.60	No	No
1042	1862	Makuu Farm and Agr. Lots: Phase I	A-18+76.43L	19.5310722	-154.9656278	486	20.0	435	4.56	No	No
1043	1862	Makuu Farm and Agr. Lots: Phase I	A-18+76.43R	19.5310722	-154.9656278	486	20.0	435	4.56	No	No
1044	1862	Makuu Farm and Agr. Lots: Phase I	A-20+00R	19.5311528	-154.9651528	486	20.0	435	4.54	No	No
1045	1862	Makuu Farm and Agr. Lots: Phase I	A-22+54R	19.5311833	-154.9648250	486	25.0	430	4.52	No	No
1046	1862	Makuu Farm and Agr. Lots: Phase I	A-28+80R	19.5316222	-154.9635333	482	20.0	431	4.45	No	No
1047	1862	Makuu Farm and Agr. Lots: Phase I	A-32+00L	19.5320778	-154.9623528	477	20.0	426	4.37	No	No
1048	1862	Makuu Farm and Agr. Lots: Phase I	A-32+00R	19.5320778	-154.9623528	477	20.0	426	4.37	No	No
1049	1862	Makuu Farm and Agr. Lots: Phase I	A-46+20L	19.5345667	-154.9610306	469	20.0	418	4.19	No	No
1050	1862	Makuu Farm and Agr. Lots: Phase I	A-47+40L	19.5347833	-154.9611083	466	20.0	415	4.18	No	No
1051	1862	Makuu Farm and Agr. Lots: Phase I	A-48+70L	19.5353000	-154.9613444	464	20.0	413	4.16	No	No
1052	1862	Makuu Farm and Agr. Lots: Phase I	A-50+00L	19.5355694	-154.9614389	464	20.0	413	4.15	No	No
1053	1862	Makuu Farm and Agr. Lots: Phase I	A-51+21.43L	19.5359306	-154.9616417	464	20.0	414	4.14	No	No
1054	1862	Makuu Farm and Agr. Lots: Phase I	A-51+21.43R	19.5359306	-154.9616417	464	20.0	414	4.14	No	No
1055	1862	Makuu Farm and Agr. Lots: Phase I	A-52+30L	19.5363750	-154.9619750	463	24.4	408	4.13	No	No
1056	1862	Makuu Farm and Agr. Lots: Phase I	A-53+14L	19.5367306	-154.9620778	463	20.0	412	4.12	No	No
1057	1862	Makuu Farm and Agr. Lots: Phase I	A-56+38.33L	19.5374389	-154.9620889	462	20.0	411	4.08	No	No
1058	1862	Makuu Farm and Agr. Lots: Phase I	A-56+38.33R	19.5374389	-154.9620889	462	20.0	411	4.08	No	No
1035	1862	Makuu Farm and Agr. Lots: Phase I	A-60+70R	19.5303750	-154.9690667	497	20.0	445	4.75	No	No
1059	1862	Makuu Farm and Agr. Lots: Phase I	A-61+00L	19.5383694	-154.9622056	456	20.0	406	4.04	No	No
1060	1862	Makuu Farm and Agr. Lots: Phase I	A-61+00R	19.5383694	-154.9622056	456	20.0	406	4.04	No	No
1061	1862	Makuu Farm and Agr. Lots: Phase I	A-62+40L	19.5386278	-154.9622889	455	20.0	404	4.03	No	No
1062	1862	Makuu Farm and Agr. Lots: Phase I	A-64+05.72L	19.5387889	-154.9623000	453	20.0	403	4.02	No	No
1063	1862	Makuu Farm and Agr. Lots: Phase I	A-64+05.72R	19.5387889	-154.9623000	453	20.0	403	4.02	No	No
1064	1862	Makuu Farm and Agr. Lots: Phase I	A-66+10R	19.5390556	-154.9623528	452	20.0	401	4.01	No	No
1065	1862	Makuu Farm and Agr. Lots: Phase I	A-70+50L	19.5398167	-154.9625167	445	20.0	395	3.98	No	No
1066	1862	Makuu Farm and Agr. Lots: Phase I	A-75+50L	19.5412806	-154.9628056	437	20.0	387	3.92	No	No
1067	1862	Makuu Farm and Agr. Lots: Phase I	A-77+95L	19.5418611	-154.9628806	435	22.1	383	3.90	No	No
1068	1862	Makuu Farm and Agr. Lots: Phase I	A-83+50L	19.5433361	-154.9630139	423	20.0	373	3.83	No	No
1069	1862	Makuu Farm and Agr. Lots: Phase I	A-83+50R	19.5433361	-154.9630139	423	20.0	373	3.83	No	No
1070	1862	Makuu Farm and Agr. Lots: Phase I	A-88+20L	19.5448000	-154.9630944	413	20.0	363	3.77	No	No
1071	1862	Makuu Farm and Agr. Lots: Phase I	A-95+00L	19.5467028	-154.9636361	400	20.0	350	3.70	No	No
1072	1862	Makuu Farm and Agr. Lots: Phase I	A-96+75L	19.5470278	-154.9637306	397	20.0	347	3.69	No	No
1073	1862	Makuu Farm and Agr. Lots: Phase I	A-97+81.26L	19.5472528	-154.9637972	397	20.0	347	3.68	No	No
1074	1862	Makuu Farm and Agr. Lots: Phase I	A-97+81.26R	19.5472528	-154.9637972	397	20.0	347	3.68	No	No
1075	1862	Makuu Farm and Agr. Lots: Phase I	A-99+20L	19.5475083	-154.9638361	396	20.0	346	3.68	No	No
1084	1862	Makuu Farm and Agr. Lots: Phase I	B1-11+20L	19.5230611	-154.9662222	548	20.0	496	5.02	No	No
1085	1862	Makuu Farm and Agr. Lots: Phase I	B1-14+50L	19.5237583	-154.9664917	548	20.0	496	4.99	No	No
1086	1862	Makuu Farm and Agr. Lots: Phase I	B1-18+00L	19.5243500	-154.9667361	543	20.0	491	4.97	No	No
1087	1862	Makuu Farm and Agr. Lots: Phase I	B1-18+00R	19.5243500	-154.9667361	543	20.0	491	4.97	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1088	1862	Makuu Farm and Agr. Lots: Phase I	B1-23+00L	19.5249417	-154.9670500	542	20.0	489	4.95	No	No
1089	1862	Makuu Farm and Agr. Lots: Phase I	B1-25+00L	19.5255361	-154.9673500	540	20.0	488	4.93	No	No
1082	1862	Makuu Farm and Agr. Lots: Phase I	B1-3+14.7L	19.5211194	-154.9668444	564	22.8	508	5.15	No	No
1083	1862	Makuu Farm and Agr. Lots: Phase I	B1-3+14.7R	19.5211194	-154.9668444	564	20.0	511	5.15	No	No
1090	1862	Makuu Farm and Agr. Lots: Phase I	B1-31+00L	19.5273833	-154.9682278	524	20.0	472	4.87	No	No
1091	1862	Makuu Farm and Agr. Lots: Phase I	B1-34+50L	19.5287139	-154.9684278	506	20.0	454	4.80	No	No
1092	1862	Makuu Farm and Agr. Lots: Phase I	B1-38+00L	19.5303750	-154.9690667	497	20.0	445	4.75	No	No
1093	1862	Makuu Farm and Agr. Lots: Phase I	B1-39+68L	19.5303750	-154.9690667	497	20.0	445	4.75	No	No
1094	1862	Makuu Farm and Agr. Lots: Phase I	31-41+07.04I	19.5303750	-154.9690667	497	20.0	445	4.75	No	No
1095	1862	Makuu Farm and Agr. Lots: Phase I	31-41+07.04F	19.5303750	-154.9690667	497	20.0	445	4.75	No	No
1096	1862	Makuu Farm and Agr. Lots: Phase I	B1-45+70L	19.5321556	-154.9691944	493	20.0	442	4.66	No	No
1097	1862	Makuu Farm and Agr. Lots: Phase I	31-46+66.67I	19.5324222	-154.9692528	493	20.0	442	4.65	No	No
1098	1862	Makuu Farm and Agr. Lots: Phase I	31-46+66.67F	19.5324222	-154.9692528	493	20.0	442	4.65	No	No
1099	1862	Makuu Farm and Agr. Lots: Phase I	B1-51+00L	19.5337056	-154.9694639	488	20.0	436	4.60	No	No
1100	1862	Makuu Farm and Agr. Lots: Phase I	B1-51+00R	19.5337056	-154.9694639	488	20.0	436	4.60	No	No
1101	1862	Makuu Farm and Agr. Lots: Phase I	B1-54+50L	19.5345083	-154.9695611	481	20.0	429	4.56	No	No
1102	1862	Makuu Farm and Agr. Lots: Phase I	31-56+38.33I	19.5349972	-154.9696861	480	26.0	422	4.55	No	No
1103	1862	Makuu Farm and Agr. Lots: Phase I	31-56+38.33F	19.5349972	-154.9696861	480	20.0	428	4.55	No	No
1108	1862	Makuu Farm and Agr. Lots: Phase I	32-11+33.33I	19.5188889	-154.9699472	575	20.0	522	5.39	No	No
1109	1862	Makuu Farm and Agr. Lots: Phase I	32-11+33.33F	19.5188889	-154.9699472	575	20.0	522	5.39	No	No
1110	1862	Makuu Farm and Agr. Lots: Phase I	B2-12+94L	19.5185556	-154.9703778	573	20.0	521	5.43	No	No
1104	1862	Makuu Farm and Agr. Lots: Phase I	B2-4+48L	19.5199278	-154.9683278	560	20.0	507	5.27	No	No
1105	1862	Makuu Farm and Agr. Lots: Phase I	B2-5+15L	19.5198528	-154.9684694	561	20.0	508	5.28	No	No
1106	1862	Makuu Farm and Agr. Lots: Phase I	B2-6+23.08L	19.5197750	-154.9687972	562	20.0	509	5.30	No	No
1107	1862	Makuu Farm and Agr. Lots: Phase I	B2-6+23.08R	19.5197750	-154.9687972	562	20.0	509	5.30	No	No
1113	1862	Makuu Farm and Agr. Lots: Phase I	C-14+50L	19.5354389	-154.9645250	470	20.0	419	4.29	No	No
1114	1862	Makuu Farm and Agr. Lots: Phase I	C-14+50R	19.5354389	-154.9645250	470	20.0	419	4.29	No	No
1115	1862	Makuu Farm and Agr. Lots: Phase I	C-17+26.91L	19.5351833	-154.9649917	470	20.0	419	4.32	No	No
1116	1862	Makuu Farm and Agr. Lots: Phase I	C-17+26.91R	19.5351833	-154.9649917	470	20.0	419	4.32	No	No
1117	1862	Makuu Farm and Agr. Lots: Phase I	C-22+50L	19.5342083	-154.9652722	474	20.0	423	4.39	No	No
1111	1862	Makuu Farm and Agr. Lots: Phase I	C-3+30L	19.5360611	-154.9624750	464	20.0	414	4.17	No	No
1118	1862	Makuu Farm and Agr. Lots: Phase I	C-34+50L	19.5301583	-154.9646444	496	20.0	445	4.57	No	No
1119	1862	Makuu Farm and Agr. Lots: Phase I	C-34+50R	19.5301583	-154.9646444	496	20.0	445	4.57	No	No
1120	1862	Makuu Farm and Agr. Lots: Phase I	C-38+50R	19.5288778	-154.9643528	506	20.0	454	4.63	No	No
1121	1862	Makuu Farm and Agr. Lots: Phase I	C-40+00R	19.5284417	-154.9642028	513	20.0	461	4.64	No	No
1122	1862	Makuu Farm and Agr. Lots: Phase I	C-44+00R	19.5271361	-154.9636306	520	20.0	468	4.69	No	No
1123	1862	Makuu Farm and Agr. Lots: Phase I	C-45+28.5L	19.5266528	-154.9634528	521	20.0	469	4.71	No	No
1124	1862	Makuu Farm and Agr. Lots: Phase I	C-45+28.5R	19.5266528	-154.9634528	521	20.0	469	4.71	No	No
1125	1862	Makuu Farm and Agr. Lots: Phase I	C-47+20R	19.5261806	-154.9632667	524	20.0	472	4.73	No	No
1112	1862	Makuu Farm and Agr. Lots: Phase I	C-6+10L	19.5358222	-154.9631611	467	20.0	416	4.21	No	No
1126	1862	Makuu Farm and Agr. Lots: Phase I	D-0+80R	19.5328111	-154.9609444	473	20.0	422	4.28	No	No
1131	1862	Makuu Farm and Agr. Lots: Phase I	D-11+28.85L	19.5295306	-154.9615194	482	20.0	431	4.48	No	No
1132	1862	Makuu Farm and Agr. Lots: Phase I	D-11+28.85R	19.5295306	-154.9615194	482	20.0	431	4.48	No	No
1127	1862	Makuu Farm and Agr. Lots: Phase I	D-2+06.54L	19.5322556	-154.9606417	473	20.0	422	4.29	No	No
1128	1862	Makuu Farm and Agr. Lots: Phase I	D-2+06.54R	19.5322556	-154.9606417	473	20.0	422	4.29	No	No
1129	1862	Makuu Farm and Agr. Lots: Phase I	D-3+15L	19.5317361	-154.9604056	474	20.0	423	4.31	No	No
1130	1862	Makuu Farm and Agr. Lots: Phase I	D-3+15R	19.5317361	-154.9604056	474	20.0	423	4.31	No	No
1133	1862	Makuu Farm and Agr. Lots: Phase I	E1-0+92.43L	19.5385417	-154.9628917	455	20.0	404	4.06	No	No
1134	1862	Makuu Farm and Agr. Lots: Phase I	E1-0+92.43R	19.5385417	-154.9628917	455	20.0	404	4.06	No	No
1135	1862	Makuu Farm and Agr. Lots: Phase I	F-3+07.14L	19.5418361	-154.9633611	437	20.0	387	3.92	No	No
1136	1862	Makuu Farm and Agr. Lots: Phase I	F-3+07.14R	19.5418361	-154.9633611	437	20.0	387	3.92	No	No
1137	1862	Makuu Farm and Agr. Lots: Phase I	F-4+90L	19.5417417	-154.9637417	438	20.0	388	3.94	No	No
1138	1862	Makuu Farm and Agr. Lots: Phase I	F-4+90R	19.5417417	-154.9637417	438	20.0	388	3.94	No	No
1139	1862	Makuu Farm and Agr. Lots: Phase I	F-6+70L	19.5416250	-154.9641667	440	20.0	390	3.97	No	No
1140	1862	Makuu Farm and Agr. Lots: Phase I	F-6+70R	19.5416250	-154.9641667	440	20.0	390	3.97	No	No
1141	1862	Makuu Farm and Agr. Lots: Phase I	F-8+40L	19.5414722	-154.9646889	444	20.0	394	4.00	No	No
1142	1862	Makuu Farm and Agr. Lots: Phase I	G-1+87.98L	19.5433917	-154.9619167	422	20.0	372	3.78	No	No
1143	1862	Makuu Farm and Agr. Lots: Phase I	G-1+87.98R	19.5433917	-154.9619167	422	20.0	372	3.78	No	No
1144	1862	Makuu Farm and Agr. Lots: Phase I	H-0+72.99L	19.5453333	-154.9634361	412	20.0	362	3.76	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1145	1862	Makuu Farm and Agr. Lots: Phase I	H-0+72.99R	19.5453333	-154.9634361	412	20.0	362	3.76	No	No
1153	1862	Makuu Farm and Agr. Lots: Phase I	H-13+90L	19.5464611	-154.9673444	438	20.0	388	3.90	No	No
1154	1862	Makuu Farm and Agr. Lots: Phase I	H-15+40.96L	19.5467444	-154.9676528	438	20.0	388	3.90	No	No
1155	1862	Makuu Farm and Agr. Lots: Phase I	H-15+40.96R	19.5467444	-154.9676528	438	20.0	388	3.90	No	No
1156	1862	Makuu Farm and Agr. Lots: Phase I	H-16+90L	19.5469222	-154.9678389	435	20.0	385	3.90	No	No
1146	1862	Makuu Farm and Agr. Lots: Phase I	H-3+00L	19.5450361	-154.9640250	418	20.0	368	3.80	No	No
1147	1862	Makuu Farm and Agr. Lots: Phase I	H-3+00R	19.5450361	-154.9640250	418	20.0	368	3.80	No	No
1148	1862	Makuu Farm and Agr. Lots: Phase I	H-5+30L	19.5448361	-154.9648250	420	20.0	370	3.85	No	No
1149	1862	Makuu Farm and Agr. Lots: Phase I	H-5+30R	19.5448361	-154.9648250	420	20.0	370	3.85	No	No
1150	1862	Makuu Farm and Agr. Lots: Phase I	H-7+50L	19.5454083	-154.9657944	431	20.0	382	3.87	No	No
1151	1862	Makuu Farm and Agr. Lots: Phase I	H-9+40L	19.5457694	-154.9663806	434	20.0	384	3.88	No	No
1152	1862	Makuu Farm and Agr. Lots: Phase I	H-9+40R	19.5457694	-154.9663806	434	20.0	384	3.88	No	No
1157	1862	Makuu Farm and Agr. Lots: Phase I	J-14+12.30L	19.5229667	-154.9723111	540	20.0	487	5.27	No	No
1158	1862	Makuu Farm and Agr. Lots: Phase I	J-14+12.30R	19.5229667	-154.9723111	540	20.0	487	5.27	No	No
1159	1862	Makuu Farm and Agr. Lots: Phase I	J-20+00L	19.5245639	-154.9734917	539	20.0	486	5.24	No	No
1161	1862	Makuu Farm and Agr. Lots: Phase I	J-23.92.86R	19.5261000	-154.9742972	543	20.0	490	5.19	No	No
1160	1862	Makuu Farm and Agr. Lots: Phase I	J-23+92.86L	19.5261000	-154.9742972	543	26.2	484	5.19	No	No
1163	1862	Makuu Farm and Agr. Lots: Phase I	K1-10+50L	19.5176028	-154.9677778	594	20.0	541	5.38	No	No
1164	1862	Makuu Farm and Agr. Lots: Phase I	K1-18+38.46I	19.5153472	-154.9689250	612	25.7	553	5.55	No	2 year ¹
1165	1862	Makuu Farm and Agr. Lots: Phase I	K1-18+38.46F	19.5153472	-154.9689250	612	20.0	559	5.55	No	2 year ¹
1162	1862	Makuu Farm and Agr. Lots: Phase I	K1-3+80R	19.5197611	-154.9683444	562	20.0	509	5.28	No	No
1171	1862	Makuu Farm and Agr. Lots: Phase I	K2-13+50L	19.5270583	-154.9716250	524	20.0	471	5.03	No	No
1166	1862	Makuu Farm and Agr. Lots: Phase I	K2-3+20L	19.5238639	-154.9703472	542	20.0	489	5.14	No	No
1167	1862	Makuu Farm and Agr. Lots: Phase I	K2-4+95.06L	19.5244306	-154.9703667	537	20.0	485	5.11	No	No
1168	1862	Makuu Farm and Agr. Lots: Phase I	K2-4+95.06R	19.5244306	-154.9703667	537	20.0	485	5.11	No	No
1169	1862	Makuu Farm and Agr. Lots: Phase I	K2-8+50L	19.5254833	-154.9708472	532	20.0	479	5.08	No	No
1170	1862	Makuu Farm and Agr. Lots: Phase I	K2-8+50R	19.5254833	-154.9708472	532	20.0	479	5.08	No	No
1172	1866	Villages of Laiopua	1	19.6726000	-156.0113889	85	23.9	60	0.67	No	No
1173	1866	Villages of Laiopua	2	19.6726000	-156.0113889	85	19.8	64	0.67	No	No
1174	1866	Villages of Laiopua	3	19.6726000	-156.0113889	82	24.3	57	0.67	No	No
1175	1866	Villages of Laiopua	4	19.6726000	-156.0113889	82	26.0	56	0.67	No	No
1176	1866	Villages of Laiopua	5	19.6726000	-156.0113889	84	25.8	57	0.67	No	No
1177	1866	Villages of Laiopua	6	19.6726000	-156.0113889	84	25.3	58	0.67	No	No
1178	1875	Huina Heights Subdivision	A	19.5887361	-155.0920111	1,135	25.2	1,074	8.00	No	No
1179	1875	Huina Heights Subdivision	B	19.5890220	-155.0902460	1,131	24.4	1,070	7.89	No	No
1180	1875	Huina Heights Subdivision	C	19.5892540	-155.0887420	1,110	22.6	1,052	7.80	No	No
1181	1881	Crossroads (Henry St)	1	19.6443667	-155.9890972	168	26.0	142	0.49	Yes	No
1182	1881	Crossroads (Henry St)	2	19.6442611	-155.9888556	163	26.0	136	0.50	Yes	No
1183	1881	Crossroads (Henry St)	3	19.6457278	-155.9890111	194	26.0	168	0.56	Yes	No
1184	1881	Crossroads (Henry St)	4	19.6457500	-155.9888444	198	26.0	172	0.57	Yes	No
1185	1881	Crossroads (Henry St)	5	19.6466778	-155.9891389	212	26.0	186	0.61	No	No
1186	1881	Crossroads (Henry St)	6	19.6466694	-155.9889444	214	26.0	187	0.61	Yes	No
1187	1881	Crossroads (Henry St)	7	19.6482000	-155.9890167	248	26.0	222	0.70	Yes	No
1188	1881	Crossroads (Henry St)	8	19.6481667	-155.9887917	247	26.0	220	0.70	Yes	No
1189	1881	Crossroads (Henry St)	9	19.6493139	-155.9888889	267	26.0	241	0.77	No	No
1190	1881	Crossroads (Henry St)	10	19.6494000	-155.9887306	273	26.0	246	0.78	No	No
1191	1893	Kudo Subdivision	1	19.4930139	-155.9158778	1,379	20.0	1,358	1.06	Yes	No
1192	1893	Kudo Subdivision	2	19.4931083	-155.9154778	1,400	20.0	1,379	1.07	Yes	No
1193	1895	McClean Honokohau Properties	1	19.6722306	-156.0113778	87	19.8	66	0.66	No	No
1194	1895	McClean Honokohau Properties	2	19.6722917	-156.0112333	94	21.7	72	0.67	No	No
1195	1895	McClean Honokohau Properties	3	19.6734806	-156.0116528	106	26.5	79	0.67	No	No
1196	1895	McClean Honokohau Properties	4	19.6735222	-156.0115056	107	23.6	83	0.68	No	No
1197	1895	McClean Honokohau Properties	5	19.6751361	-156.0122917	120	24.0	95	0.69	Yes	No
1198	1895	McClean Honokohau Properties	6	19.6752056	-156.0121500	125	24.2	101	0.70	No	No
1199	1895	McClean Honokohau Properties	7	19.6748472	-156.0114944	131	24.3	106	0.73	Yes	No
1200	1895	McClean Honokohau Properties	8	19.6747028	-156.0114556	130	22.0	107	0.72	No	No
1201	1895	McClean Honokohau Properties	9	19.6748528	-156.0104417	141	26.3	114	0.79	No	No
1202	1895	McClean Honokohau Properties	10	19.6746944	-156.0104833	136	26.4	109	0.78	No	No
1203	1896	Makalei Plantation Subd.	A-1	19.7389417	-155.9929000	944	15.1	928	3.82	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1204	1896	Makalei Plantation Subd.	A-2	19.7388361	-155.9929333	944	12.9	930	3.82	No	No
1205	1896	Makalei Plantation Subd.	A-3	19.7364583	-155.9911917	1,057	20.3	1,036	3.97	No	No
1206	1896	Makalei Plantation Subd.	A-4	19.7343306	-155.9903250	1,102	18.4	1,083	4.07	No	No
1207	1896	Makalei Plantation Subd.	A-5	19.7342639	-155.9881778	1,251	25.6	1,209	4.21	No	No
1208	1896	Makalei Plantation Subd.	A-6	19.7364083	-155.9844444	1,464	9.8	1,437	4.40	No	No
1209	1896	Makalei Plantation Subd.	D-1	19.7334333	-155.9828333	1,561	22.2	1,474	4.53	No	No
1210	1896	Makalei Plantation Subd.	D-2	19.7346361	-155.9827333	1,566	10.9	1,509	4.54	No	No
1211	1896	Makalei Plantation Subd.	D-3	19.7362667	-155.9826472	1,564	22.7	1,496	4.51	No	No
1212	1896	Makalei Plantation Subd.	D-4	19.7366361	-155.9825222	1,559	23.0	1,490	4.51	No	No
1213	1896	Makalei Plantation Subd.	E-1	19.7367056	-155.9841611	1,477	25.1	1,435	4.41	No	No
1214	1896	Makalei Plantation Subd.	E-2	19.7371167	-155.9844722	1,440	22.2	1,401	4.38	No	No
1215	1896	Makalei Plantation Subd.	F-1	19.7327694	-155.9857222	1,389	21.5	1,341	4.33	Yes	No
1216	1896	Makalei Plantation Subd.	F-2	19.7335139	-155.9856889	1,386	20.2	1,340	4.35	No	No
1217	1896	Makalei Plantation Subd.	F-3	19.7327806	-155.9858417	1,384	11.1	1,346	4.32	Yes	No
1218	1896	Makalei Plantation Subd.	F-4	19.7351861	-155.9862694	1,364	28.0	1,319	4.31	No	No
1219	1896	Makalei Plantation Subd.	G-1	19.7346861	-155.9905639	1,093	28.4	1,063	4.05	No	No
1220	1896	Makalei Plantation Subd.	G-2	19.7345639	-155.9903833	1,107	28.0	1,078	4.06	No	No
1221	1896	Makalei Plantation Subd.	G-3	19.7351778	-155.9898389	1,144	22.8	1,120	4.08	No	No
1222	1896	Makalei Plantation Subd.	G-4	19.7374194	-155.9883917	1,222	20.2	1,185	4.13	No	No
1223	1896	Makalei Plantation Subd.	G-5	19.7374778	-155.9883861	1,222	22.2	1,183	4.13	No	No
1224	1896	Makalei Plantation Subd.	G-6	19.7392306	-155.9881361	1,238	21.2	1,214	4.11	No	No
1225	1896	Makalei Plantation Subd.	G-7	19.7396139	-155.9881167	1,232	23.0	1,207	4.11	No	No
1226	1896	Makalei Plantation Subd.	H-1	19.7344750	-155.9927889	1,007	21.7	985	3.92	No	No
1227	1896	Makalei Plantation Subd.	H-2	19.7357639	-155.9923111	1,012	8.5	1,002	3.92	No	No
1228	1896	Makalei Plantation Subd.	H-3	19.7362556	-155.9913667	1,043	23.3	1,019	3.97	No	No
1229	1896	Makalei Plantation Subd.	J-1	19.7374194	-155.9912528	1,053	18.8	1,033	3.95	No	No
1230	1896	Makalei Plantation Subd.	J-2	19.7376417	-155.9909056	1,078	13.3	1,063	3.97	No	No
1231	1896	Makalei Plantation Subd.	J-3	19.7396194	-155.9908972	1,072	20.2	1,051	3.93	Yes	No
1232	1896	Makalei Plantation Subd.	K-1	19.7328583	-155.9881806	1,231	18.7	1,186	4.18	No	No
1233	1896	Makalei Plantation Subd.	K-2	19.7329167	-155.9883611	1,220	20.2	1,173	4.17	No	No
1234	1896	Makalei Plantation Subd.	K-3	19.7341167	-155.9881083	1,255	23.9	1,214	4.21	No	No
1235	1901	Komohana Kai, Unit II	1	19.6072222	-155.9697222	141	17.0	124	0.39	No	No
1236	1901	Komohana Kai, Unit II	2	19.6075000	-155.9683333	192	22.0	170	0.48	Yes	No
1237	1901	Komohana Kai, Unit II	3	19.6075000	-155.9677778	193	17.0	176	0.51	No	No
1238	1901	Komohana Kai, Unit II	4	19.6069444	-155.9672222	208	17.0	191	0.53	No	No
1239	1901	Komohana Kai, Unit II	5	19.6075000	-155.9663889	242	17.0	225	0.59	No	No
1240	1901	Komohana Kai, Unit II	6	19.6080556	-155.9655556	280	14.0	265	0.66	No	No
1241	1901	Komohana Kai, Unit II	7	19.6072222	-155.9650000	306	18.0	288	0.67	No	No
1242	1901	Komohana Kai, Unit II	8	19.6072222	-155.9661111	246	16.0	230	0.60	No	No
1243	1901	Komohana Kai, Unit II	9	19.6063889	-155.9669444	218	18.0	200	0.53	No	No
1244	1901	Komohana Kai, Unit II	10	19.6063889	-155.9694444	147	18.0	129	0.38	No	No
1245	1901	Komohana Kai, Unit II	11	19.6055556	-155.9697222	143	21.0	122	0.34	No	No
1246	1901	Komohana Kai, Unit II	12	19.6055556	-155.9683333	186	19.0	167	0.42	No	No
1247	1901	Komohana Kai, Unit II	13	19.6063889	-155.9683333	192	18.0	174	0.44	No	No
1248	1901	Komohana Kai, Unit II	14	19.6058333	-155.9675000	200	18.0	182	0.48	No	No
1249	1902	White Sands Beach Est., Unit II	1	19.5891667	-155.9691667	62	10.0	52	0.17	No	No
1250	1902	White Sands Beach Est., Unit II	2	19.5891667	-155.9691667	62	9.0	53	0.17	No	No
1251	1903	Sunrise Estates Sub. 1-A	A	19.7028500	-155.1051083	396	26.3	340	1.88	No	No
1252	1903	Sunrise Estates Sub. 1-A	B	19.7029528	-155.1044944	392	26.3	336	1.86	No	No
1253	1903	Sunrise Estates Sub. 1-A	C	19.7025750	-155.1035056	390	26.3	334	1.85	No	No
1254	1903	Sunrise Estates Sub. 1-A	D	19.7035861	-155.1035000	383	26.3	327	1.79	No	No
1255	1903	Sunrise Estates Sub. 1-A	E	19.7039694	-155.1027750	378	23.4	326	1.74	No	No
1256	1906	Waiakea Acres Subdivision	1	19.6654050	-155.1062070	642	25.8	583	3.87	No	No
1257	1906	Waiakea Acres Subdivision	2	19.6653528	-155.1063556	642	25.0	584	3.88	No	No
1258	1906	Waiakea Acres Subdivision	3	19.6642389	-155.1069694	646	25.0	588	3.97	No	No
1259	1906	Waiakea Acres Subdivision	4	19.6631417	-155.1057250	647	26.0	588	3.99	No	No
1260	1906	Waiakea Acres Subdivision	5	19.6629583	-155.1060306	649	23.0	593	4.01	No	No
1261	1906	Waiakea Acres Subdivision	6	19.6628556	-155.1071028	653	25.8	594	4.06	No	No
1262	1907	Keaua Ag Lots	1	19.6071306	-155.0422028	462	20.0	409	4.53	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1263	1908	Nohona Subdivision	1	19.6830194	-155.0614000	121	22.0	74	2.29	Yes	No
1264	1908	Nohona Subdivision	2	19.6839889	-155.0619667	119	22.0	72	2.21	Yes	No
1265	1908	Nohona Subdivision	3	19.6840611	-155.0618361	120	22.0	73	2.21	Yes	No
1266	1909	Kalaoa View Estates	1	19.7302083	-155.9804889	1,690	30.8	1,593	4.55	No	No
1267	1909	Kalaoa View Estates	2	19.7301556	-155.9813611	1,633	25.0	1,542	4.50	Yes	No
1268	1909	Kalaoa View Estates	3	19.7301278	-155.9824611	1,537	25.0	1,446	4.45	No	No
1269	1909	Kalaoa View Estates	4	19.7294750	-155.9831583	1,497	25.0	1,384	4.38	No	No
1270	1909	Kalaoa View Estates	5	19.7294444	-155.9807250	1,650	25.0	1,536	4.50	No	No
1271	1909	Kalaoa View Estates	6	19.7294083	-155.9815472	1,572	25.0	1,459	4.46	No	No
1272	1909	Kalaoa View Estates	7	19.7294472	-155.9823833	1,534	25.0	1,421	4.42	No	No
1273	1909	Kalaoa View Estates	8	19.7286083	-155.9814306	1,581	25.0	1,468	4.43	No	No
1274	1909	Kalaoa View Estates	9	19.7292167	-155.9835444	1,475	20.5	1,366	4.35	No	No
1275	1909	Kalaoa View Estates	10	19.7293444	-155.9839028	1,451	25.0	1,338	4.34	No	No
1276	1917	W. H. Shipman Mutual Self-Help Subd.	1	19.6275417	-155.0370722	264	25.5	209	3.71	No	No
1277	1917	W. H. Shipman Mutual Self-Help Subd.	2	19.6278500	-155.0362417	260	26.0	204	3.65	No	No
1278	1917	W. H. Shipman Mutual Self-Help Subd.	3	19.6284278	-155.0364917	257	27.2	201	3.65	No	No
1279	1920	Hoonani Subdivision	1	19.6849306	-155.0637972	105	26.0	53	2.11	Yes	No
1280	1920	Hoonani Subdivision	2	19.6849361	-155.0639250	105	26.0	53	2.10	No	No
1281	1920	Hoonani Subdivision	3	19.6833917	-155.0631972	118	20.5	71	2.22	No	No
2108	1922	Kailua Landfill Closure - Phase 3 Construction	1	19.6640278	-156.0051389	109	20.8	88	1.09	No	No
2109	1922	Kailua Landfill Closure - Phase 3 Construction	2	19.6640556	-156.0050556	109	20.1	88	1.09	No	No
2110	1922	Kailua Landfill Closure - Phase 3 Construction	3	19.6641111	-156.0049444	109	20.5	88	1.10	No	No
2111	1922	Kailua Landfill Closure - Phase 3 Construction	4	19.6641389	-156.0048333	110	21.0	88	1.11	Yes	No
2112	1922	Kailua Landfill Closure - Phase 3 Construction	5	19.6641667	-156.0047222	110	20.1	89	1.11	No	No
2114	1922	Kailua Landfill Closure - Phase 3 Construction	6	19.6644167	-156.0038611	121	20.2	101	1.16	No	No
2118	1922	Kailua Landfill Closure - Phase 3 Construction	7	19.6645278	-156.0029167	149	21.0	127	1.22	No	No
2120	1922	Kailua Landfill Closure - Phase 3 Construction	8	19.6632500	-156.0011111	179	20.4	158	1.36	No	No
2119	1922	Kailua Landfill Closure - Phase 3 Construction	9	19.6631389	-156.0010833	177	20.0	156	1.36	No	No
2117	1922	Kailua Landfill Closure - Phase 3 Construction	10	19.6623333	-156.0026389	133	19.6	113	1.28	No	No
2116	1922	Kailua Landfill Closure - Phase 3 Construction	11	19.6623056	-156.0027500	132	20.4	111	1.27	No	No
2115	1922	Kailua Landfill Closure - Phase 3 Construction	12	19.6627778	-156.0050833	123	20.8	102	1.12	No	No
2113	1922	Kailua Landfill Closure - Phase 3 Construction	13	19.6627222	-156.0051944	119	19.7	99	1.12	No	No
2122	1946	Volcano Golf & Country Club	A	19.4394440	-155.2805560	4,014	26.0	3,901	11.63	No	No
2121	1946	Volcano Golf & Country Club	B	19.4383330	-155.2794440	4,009	26.0	3,895	11.55	No	No
1282	1965	Sunset Ridge at Waikoloa	1	19.9415944	-155.7986583	769	28.7	732	3.08	No	No
1283	1965	Sunset Ridge at Waikoloa	2	19.9424500	-155.7989000	761	29.3	724	3.03	No	No
1284	1965	Sunset Ridge at Waikoloa	3	19.9410694	-155.7977250	782	28.7	745	3.15	No	No
1285	1970	Ka Lani Estates	1	19.9477806	-155.7858306	918	24.0	886	3.48	No	No
1286	1970	Ka Lani Estates	2	19.9477806	-155.7858306	918	24.0	886	3.48	No	No
1287	1970	Ka Lani Estates	3	19.9477806	-155.7858306	918	24.0	886	3.48	No	No
1288	1970	Ka Lani Estates	4	19.9477806	-155.7858306	918	24.0	886	3.48	No	No
1289	1978	Parker Ranch Parcel 42 Subdivision	1	20.0267111	-155.6565194	2,758	26.2	2,718	7.62	Yes	10 year
1290	1978	Parker Ranch Parcel 42 Subdivision	2	20.0263750	-155.6563389	2,728	26.0	2,689	7.63	Yes	10 year
1291	1978	Parker Ranch Parcel 42 Subdivision	3	20.0263361	-155.6564389	2,754	26.3	2,714	7.64	No	10 year
1292	1982	Paniolo II Subdivision	1	19.6781778	-155.9861639	759	29.0	729	2.35	Yes	No
1293	1988	Ouli Mutual Self-Help	1	20.0215889	-155.7592500	1,501	25.7	1,466	4.11	No	No
1294	1988	Ouli Mutual Self-Help	2	20.0215833	-155.7591444	1,501	21.7	1,470	4.12	No	No
1295	1988	Ouli Mutual Self-Help	3	20.0196417	-155.7588722	1,511	21.7	1,479	4.14	No	No
1296	1988	Ouli Mutual Self-Help	4	20.0195000	-155.7588222	1,511	25.7	1,475	4.14	No	No
1297	2036	Kawaiiani Grove, Unit II	1	19.6850444	-155.1014222	443	22.2	389	2.59	Yes	No
1298	2036	Kawaiiani Grove, Unit II	2	19.6862028	-155.1016833	436	20.7	384	2.54	No	No
1299	2036	Kawaiiani Grove, Unit II	3	19.6863833	-155.1013056	436	20.7	385	2.52	No	No
1300	2036	Kawaiiani Grove, Unit II	4	19.6865000	-155.1013389	435	20.7	383	2.51	No	No
1301	2036	Kawaiiani Grove, Unit II	5	19.6865611	-155.1013389	435	20.7	383	2.51	No	No
1302	2048	Kaloko Business Park, Ph II	1	19.6914660	-156.0176620	206	21.0	185	1.07	Yes	No
1303	2048	Kaloko Business Park, Ph II	2	19.6914306	-156.0181556	190	20.0	169	1.04	Yes	No
1304	2048	Kaloko Business Park, Ph II	3	19.6912750	-156.0188222	180	22.0	158	0.99	Yes	No
1305	2048	Kaloko Business Park, Ph II	4	19.6894611	-156.0170556	206	20.0	186	1.08	Yes	No
1306	2048	Kaloko Business Park, Ph II	5	19.6893972	-156.0175722	196	22.0	173	1.04	Yes	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1307	2048	Kaloko Business Park, Ph II	6	19.6892306	-156.0183722	183	21.0	162	0.99	Yes	No
1308	2048	Kaloko Business Park, Ph II	7	19.6890694	-156.0191278	167	20.0	146	0.94	Yes	No
1309	2048	Kaloko Business Park, Ph II	8	19.6854722	-156.0157306	171	23.0	148	0.96	Yes	No
1310	2051	Keauhou View Estates - Unit I	1	19.5922611	-155.9685222	75	29.8	45	0.17	No	No
1311	2051	Keauhou View Estates - Unit I	2	19.5929306	-155.9680528	87	28.9	58	0.21	No	No
1312	2051	Keauhou View Estates - Unit I	3	19.5932306	-155.9675111	109	29.8	79	0.25	No	No
1313	2051	Keauhou View Estates - Unit I	4	19.5920139	-155.9685139	75	29.5	46	0.18	Yes	No
1314	2051	Keauhou View Estates - Unit I	5	19.5922417	-155.9671111	115	30.1	85	0.27	No	No
1315	2051	Keauhou View Estates - Unit I	6	19.5911222	-155.9683694	71	23.5	47	0.20	Yes	No
1316	2051	Keauhou View Estates - Unit I	7	19.5909944	-155.9683611	71	24.5	46	0.21	Yes	No
1317	2051	Keauhou View Estates - Unit I	8	19.5903222	-155.9682472	81	22.9	58	0.22	Yes	No
1318	2051	Keauhou View Estates - Unit I	9	19.5901806	-155.9682417	81	21.6	60	0.22	Yes	No
1319	2051	Keauhou View Estates - Unit I	10	19.5898528	-155.9664889	127	32.0	95	0.34	No	No
1320	2051	Keauhou View Estates - Unit I	11	19.5895194	-155.9681278	84	22.4	62	0.24	No	No
1321	2051	Keauhou View Estates - Unit I	12	19.5893611	-155.9681028	84	25.1	59	0.24	No	No
1322	2051	Keauhou View Estates - Unit I	13	19.5886306	-155.9679333	85	29.2	56	0.24	Yes	No
1323	2051	Keauhou View Estates - Unit I	14	19.5914389	-155.9687639	58	39.5	19	0.17	Yes	No
1324	2051	Keauhou View Estates - Unit I	15	19.5891111	-155.9663389	123	25.0	98	0.35	No	No
1325	2051	Keauhou View Estates - Unit I	16	19.5904778	-155.9683472	80	21.8	58	0.22	Yes	No
1326	2052	Kohanaiki Industrial Park	1	19.7000556	-156.0286389	69	20.0	49	0.84	Yes	No
1327	2052	Kohanaiki Industrial Park	2	19.6999111	-156.0285750	69	20.2	48	0.84	Yes	No
1328	2052	Kohanaiki Industrial Park	3	19.7004917	-156.0262833	69	20.5	48	0.97	Yes	No
1329	2052	Kohanaiki Industrial Park	4	19.6999500	-156.0242694	127	20.0	107	1.05	No	No
1330	2052	Kohanaiki Industrial Park	5	19.6998944	-156.0222556	159	20.2	138	1.13	No	No
1331	2052	Kohanaiki Industrial Park	6	19.6998430	-156.0206720	188	20.6	167	1.20	No	No
2123	2055	Kupulau Heights, Increment 1 & 2	A	19.6760030	-155.1075210	610	30.0	548	3.33	No	No
2124	2055	Kupulau Heights, Increment 1 & 2	B	19.6760030	-155.1075210	610	26.5	552	3.33	No	No
2125	2055	Kupulau Heights, Increment 1 & 2	C	19.6760030	-155.1075210	610	35.5	543	3.33	No	No
1332	2062	Hawi Self-Help Housing Project	1	20.2414333	-155.8274194	489	50.0	434	1.26	No	No
1333	2067	Waikoloa Subd., Unit 2-A-2, Phase I	1	19.9487528	-155.7802333	1,008	22.8	977	3.77	No	No
1334	2067	Waikoloa Subd., Unit 2-A-2, Phase I	2	19.9487389	-155.7803889	1,008	25.0	975	3.76	No	No
1335	2067	Waikoloa Subd., Unit 2-A-2, Phase I	3	19.9492028	-155.7806389	997	20.0	969	3.73	No	No
1336	2067	Waikoloa Subd., Unit 2-A-2, Phase I	4	19.9500028	-155.7802333	967	23.0	935	3.73	No	No
1337	2067	Waikoloa Subd., Unit 2-A-2, Phase I	5	19.9502389	-155.7802944	969	26.0	934	3.72	No	No
1338	2067	Waikoloa Subd., Unit 2-A-2, Phase I	6	19.9501417	-155.7805639	968	20.0	940	3.70	No	No
1339	2067	Waikoloa Subd., Unit 2-A-2, Phase I	7	19.9512222	-155.7789333	963	25.0	930	3.77	No	No
1340	2067	Waikoloa Subd., Unit 2-A-2, Phase I	8	19.9492028	-155.7814250	989	20.0	961	3.68	No	No
1341	2067	Waikoloa Subd., Unit 2-A-2, Phase I	9	19.9492667	-155.7814250	989	20.0	961	3.68	No	No
1342	2067	Waikoloa Subd., Unit 2-A-2, Phase I	10	19.9500722	-155.7809306	964	20.0	935	3.69	No	No
1343	2067	Waikoloa Subd., Unit 2-A-2, Phase I	11	19.9504417	-155.7818556	946	24.0	914	3.62	No	No
1344	2084	Hale Keekee	1	19.5148028	-155.9215306	1,528	25.8	1,388	2.00	No	No
1345	2084	Hale Keekee	2	19.5147000	-155.9221222	1,502	26.2	1,362	1.96	No	No
1346	2084	Hale Keekee	3	19.5147556	-155.9224889	1,495	22.8	1,359	1.94	No	No
1347	2116	Puainako St. Extension	1	19.6808944	-155.1562972	1,453	52.5	1,344	5.32	No	No
1348	2116	Puainako St. Extension	2	19.6809944	-155.1555000	1,437	52.5	1,329	5.27	No	No
1349	2116	Puainako St. Extension	3	19.6811444	-155.1542167	1,395	52.5	1,286	5.20	No	No
1350	2116	Puainako St. Extension	4	19.6811778	-155.1530917	1,364	52.5	1,259	5.14	No	No
1351	2116	Puainako St. Extension	5	19.6799944	-155.1340361	1,031	52.5	940	4.28	No	No
1352	2116	Puainako St. Extension	6	19.6812306	-155.1502694	1,319	52.5	1,213	4.99	No	No
1353	2116	Puainako St. Extension	9	19.6812556	-155.1496917	1,304	52.5	1,198	4.96	No	No
1354	2116	Puainako St. Extension	10	19.6813139	-155.1490667	1,289	52.5	1,183	4.92	No	No
1355	2116	Puainako St. Extension	11	19.6812917	-155.1484889	1,265	52.5	1,162	4.90	No	No
1356	2116	Puainako St. Extension	12	19.6812778	-155.1472611	1,232	52.5	1,129	4.83	No	No
1357	2116	Puainako St. Extension	13	19.6797944	-155.1333861	1,020	52.5	929	4.26	No	No
1358	2116	Puainako St. Extension	14	19.6795944	-155.1327333	1,027	52.5	936	4.24	No	No
1359	2116	Puainako St. Extension	15	19.6813972	-155.1448917	1,177	52.5	1,074	4.71	No	No
1360	2116	Puainako St. Extension	16	19.6816111	-155.1435500	1,163	52.5	1,064	4.64	No	No
1361	2116	Puainako St. Extension	17	19.6816694	-155.1421722	1,155	52.5	1,055	4.57	No	No
1362	2116	Puainako St. Extension	18	19.6818583	-155.1410556	1,140	52.5	1,040	4.50	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1363	2116	Puainako St. Extension	19	19.6817778	-155.1401417	1,129	52.5	1,029	4.46	No	No
1364	2116	Puainako St. Extension	20	19.6814583	-155.1390139	1,114	52.5	1,018	4.43	No	No
1365	2116	Puainako St. Extension	21	19.6811639	-155.1379972	1,096	52.5	1,000	4.39	No	No
1366	2116	Puainako St. Extension	22	19.6794306	-155.1321444	1,029	52.5	938	4.22	No	No
1367	2116	Puainako St. Extension	23	19.6792167	-155.1310917	1,027	52.5	936	4.19	No	No
1368	2116	Puainako St. Extension	24	19.6801722	-155.1347500	1,039	52.5	943	4.30	No	No
1369	2116	Puainako St. Extension	25	19.6801722	-155.1339500	1,027	52.5	936	4.26	No	No
1370	2116	Puainako St. Extension	26	19.6799944	-155.1332333	1,018	52.5	927	4.24	No	No
1371	2116	Puainako St. Extension	27	19.6798417	-155.1326444	1,023	52.5	931	4.22	No	No
1372	2116	Puainako St. Extension	28	19.6797000	-155.1320306	1,028	52.5	937	4.20	No	No
1373	2116	Puainako St. Extension	29	19.6794528	-155.1309917	1,027	52.5	936	4.17	No	No
1374	2116	Puainako St. Extension	30	19.6793111	-155.1297361	1,017	52.5	931	4.13	No	No
1375	2116	Puainako St. Extension	31	19.6794306	-155.1283583	1,018	52.5	932	4.07	No	No
1376	2116	Puainako St. Extension	32	19.6796194	-155.1273306	999	52.5	913	4.02	No	No
1377	2116	Puainako St. Extension	33	19.6798083	-155.1259528	945	52.5	859	3.95	No	No
1378	2116	Puainako St. Extension	34	19.6807528	-155.1246611	903	52.5	817	3.85	No	No
1379	2116	Puainako St. Extension	35	19.6809889	-155.1239083	872	52.5	787	3.81	No	No
1380	2116	Puainako St. Extension	36	19.6790639	-155.1297361	1,017	52.5	931	4.14	No	No
1381	2116	Puainako St. Extension	37	19.6791222	-155.1283583	1,018	52.5	932	4.09	No	No
1382	2116	Puainako St. Extension	38	19.6793583	-155.1272306	981	52.5	895	4.03	No	No
1383	2116	Puainako St. Extension	39	19.6838639	-155.1204278	768	52.5	682	3.52	No	No
1384	2116	Puainako St. Extension	40	19.6841694	-155.1200667	757	52.5	671	3.49	No	No
1385	2116	Puainako St. Extension	41	19.6805417	-155.1245472	896	52.5	810	3.86	No	No
1386	2116	Puainako St. Extension	42	19.6851667	-155.1190944	739	52.5	653	3.40	No	No
1387	2116	Puainako St. Extension	43	19.6893722	-155.1162000	584	52.5	499	3.05	No	No
1388	2116	Puainako St. Extension	44	19.6897722	-155.1159750	584	52.5	499	3.02	No	No
1389	2116	Puainako St. Extension	45	19.6879389	-155.1170611	610	52.5	526	3.16	No	No
1390	2116	Puainako St. Extension	46	19.6884222	-155.1166972	595	52.5	510	3.12	No	No
1391	2116	Puainako St. Extension	47	19.6888694	-155.1163861	588	52.5	504	3.09	No	No
1392	2116	Puainako St. Extension	48	19.6892806	-155.1161000	582	52.5	497	3.05	No	No
1393	2116	Puainako St. Extension	49	19.6896667	-155.1157639	582	52.5	497	3.02	No	No
1394	2116	Puainako St. Extension	50	19.6905944	-155.1150639	576	52.5	492	2.94	No	No
1395	2116	Puainako St. Extension	51	19.6914750	-155.1141167	554	52.5	470	2.86	No	No
1396	2116	Puainako St. Extension	52	19.6919694	-155.1130417	531	52.5	446	2.79	No	No
1397	2116	Puainako St. Extension	53	19.6923583	-155.1115083	517	52.5	433	2.72	No	No
1398	2116	Puainako St. Extension	54	19.6926861	-155.1102111	499	52.5	415	2.65	No	No
1399	2116	Puainako St. Extension	55	19.6927222	-155.1091139	485	52.5	402	2.59	No	No
1400	2116	Puainako St. Extension	56	19.6928167	-155.1080389	482	52.5	399	2.53	No	No
1401	2116	Puainako St. Extension	57	19.6928861	-155.1070667	474	52.5	391	2.48	No	No
1402	2116	Puainako St. Extension	58	19.6929222	-155.1061667	469	52.5	386	2.43	No	No
1403	2116	Puainako St. Extension	59	19.6929806	-155.1053444	453	52.5	371	2.39	No	No
1404	2116	Puainako St. Extension	60	19.6930750	-155.1046944	440	52.5	357	2.35	No	No
1405	2116	Puainako St. Extension	61	19.6930750	-155.1040583	433	52.5	350	2.32	No	No
1406	2116	Puainako St. Extension	62	19.6932639	-155.1029000	415	52.5	332	2.25	No	No
1407	2116	Puainako St. Extension	63	19.6934389	-155.1021639	396	52.5	313	2.21	No	No
1408	2116	Puainako St. Extension	64	19.6936972	-155.1010528	400	52.5	318	2.15	No	No
1409	2116	Puainako St. Extension	65	19.6939222	-155.0996056	387	52.5	305	2.07	No	No
1410	2116	Puainako St. Extension	66	19.6937833	-155.0988778	378	52.5	296	2.04	No	No
1411	2116	Puainako St. Extension	67	19.6938306	-155.0983667	372	52.5	290	2.02	No	No
1412	2116	Puainako St. Extension	68	19.6939111	-155.0972667	360	52.5	278	1.96	No	No
1413	2116	Puainako St. Extension	69	19.6937722	-155.0957694	360	52.5	278	1.90	No	No
1414	2116	Puainako St. Extension	70	19.6935722	-155.0943222	356	52.5	274	1.85	No	No
1415	2116	Puainako St. Extension	71	19.6935833	-155.0936250	351	52.5	270	1.82	No	No
1416	2116	Puainako St. Extension	72	19.6936417	-155.0927639	347	52.5	266	1.78	Yes	No
1417	2116	Puainako St. Extension	73	19.6936778	-155.0917778	340	52.5	260	1.74	No	No
1418	2126	Regency at Hualalai	1	19.6377361	-155.9887917	80	23.8	56	0.21	Yes	No
1419	2138	Alii Heights Subd.	1	19.5938528	-155.9665528	129	21.2	108	0.32	No	No
1420	2138	Alii Heights Subd.	2	19.5937000	-155.9665167	129	21.3	108	0.32	No	No
1421	2138	Alii Heights Subd.	3	19.5939972	-155.9650000	174	22.8	151	0.42	Yes	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1422	2138	Alii Heights Subd.	4	19.5934972	-155.9647028	185	26.2	158	0.43	Yes	No
1423	2138	Alii Heights Subd.	5	19.5933444	-155.9647222	184	25.7	158	0.43	No	No
1424	2138	Alii Heights Subd.	6	19.5932389	-155.9658806	161	26.6	134	0.35	No	No
1425	2138	Alii Heights Subd.	7	19.5929583	-155.9648361	184	27.8	156	0.42	No	No
1426	2138	Alii Heights Subd.	8	19.5924222	-155.9645806	190	25.9	164	0.43	No	No
1427	2138	Alii Heights Subd.	9	19.5922778	-155.9645306	190	26.2	163	0.43	No	No
1428	2138	Alii Heights Subd.	10	19.5921917	-155.9655639	180	27.2	153	0.37	No	No
1429	2138	Alii Heights Subd.	11	19.5915500	-155.9643361	195	26.3	168	0.45	No	No
1430	2138	Alii Heights Subd.	12	19.5914639	-155.9642000	195	26.4	169	0.46	No	No
1431	2138	Alii Heights Subd.	13	19.5911444	-155.9652472	179	26.3	152	0.40	No	No
1432	2138	Alii Heights Subd.	14	19.5906167	-155.9637861	183	26.2	156	0.50	No	No
1433	2138	Alii Heights Subd.	15	19.5904694	-155.9637361	183	27.1	156	0.50	No	No
1434	2138	Alii Heights Subd.	16	19.5902167	-155.9647361	166	26.5	140	0.45	No	No
1435	2138	Alii Heights Subd.	17	19.5900806	-155.9650694	163	26.3	136	0.43	No	No
1436	2211	Hawaii Island Community Dev. Corp.	1	20.0268583	-155.6547667	2,763	23.7	2,725	7.55	Yes	No
1437	2211	Hawaii Island Community Dev. Corp.	2	20.0269278	-155.6545583	2,763	23.9	2,725	7.54	No	No
1438	2211	Hawaii Island Community Dev. Corp.	3	20.0278194	-155.6552111	2,768	24.1	2,729	7.51	No	10 year
1439	2211	Hawaii Island Community Dev. Corp.	4	20.0279000	-155.6550750	2,768	24.0	2,729	7.50	No	10 year
1440	2211	Hawaii Island Community Dev. Corp.	5	20.0289778	-155.6557722	2,785	24.0	2,745	7.46	No	10 year
1441	2212	Kikaha Heights Subd.	A	19.6775917	-155.0963333	497	30.0	436	2.83	No	No
1442	2213	Pacific Plantation I-B	6	19.6858528	-155.1295639	937	25.0	878	3.78	No	No
1443	2215	Kupulau Meadows	1	19.6747194	-155.1102500	640	50.5	557	3.51	No	No
1444	2215	Kupulau Meadows	2	19.6747111	-155.1103972	640	45.0	563	3.51	No	No
1445	2215	Kupulau Meadows	3	19.6743472	-155.1103583	645	50.0	563	3.53	No	No
1446	2215	Kupulau Meadows	4	19.6735806	-155.1101722	651	45.0	573	3.56	No	No
1447	2215	Kupulau Meadows	5	19.6735694	-155.1102972	651	46.0	572	3.57	No	No
1448	2215	Kupulau Meadows	6	19.6722944	-155.1101944	655	36.5	586	3.63	No	No
1449	2215	Kupulau Meadows	7	19.6719417	-155.1100972	653	20.0	601	3.65	No	No
1450	2216	Wainani Estates Subd., Unit IA	1	19.7167167	-156.0012500	737	26.0	710	2.92	No	No
1451	2225	Alii Heights, Unit 2, Ph. 1	1	19.5935806	-155.9634833	227	25.0	202	0.51	No	No
1452	2225	Alii Heights, Unit 2, Ph. 1	2	19.5938667	-155.9626389	238	25.0	213	0.57	Yes	No
1453	2225	Alii Heights, Unit 2, Ph. 1	3	19.5941833	-155.9628056	237	25.0	212	0.56	No	No
1454	2225	Alii Heights, Unit 2, Ph. 1	4	19.5943778	-155.9631139	232	25.0	207	0.54	No	No
1455	2240	Ainako Avenue Drainage Impr.	1	19.7090194	-155.1265583	770	52.0	686	2.64	No	No
2128	2244	Hualalai Heights	1	19.6236240	-155.9642040	600	27.0	572	1.37	No	No
2129	2244	Hualalai Heights	2	19.6236070	-155.9642880	600	28.3	571	1.36	No	No
2126	2244	Hualalai Heights	3	19.6219640	-155.9646600	580	26.0	553	1.27	No	No
2127	2244	Hualalai Heights	4	19.6218680	-155.9646440	580	25.9	553	1.27	No	No
2130	2244	Hualalai Heights	5	19.6213160	-155.9638930	606	27.0	578	1.28	No	No
2131	2244	Hualalai Heights	6	19.6213880	-155.9637740	606	25.9	579	1.29	No	No
2133	2244	Hualalai Heights	7	19.6236200	-155.9628180	697	25.7	670	1.44	No	No
2132	2244	Hualalai Heights	8	19.6220870	-155.9639600	620	26.5	593	1.31	No	No
2134	2246	Kukuinui Subd. Incr. I	1	19.7213860	-155.9963450	865	27.8	836	3.37	No	No
2135	2246	Kukuinui Subd. Incr. I	2	19.7213860	-155.9963450	865	27.8	836	3.37	No	No
2136	2246	Kukuinui Subd. Incr. I	6	19.7213860	-155.9963450	865	27.8	836	3.37	No	No
2137	2246	Kukuinui Subd. Incr. I	7	19.7213860	-155.9963450	865	27.8	836	3.37	No	No
2138	2246	Kukuinui Subd. Incr. I	8	19.7213860	-155.9963450	865	27.8	836	3.37	No	No
2139	2246	Kukuinui Subd. Incr. I	10	19.7213860	-155.9963450	865	27.8	836	3.37	No	No
2140	2246	Kukuinui Subd. Incr. I	11	19.7213860	-155.9963450	865	27.8	836	3.37	No	No
2141	2246	Kukuinui Subd. Incr. I	12	19.7213860	-155.9963450	865	27.8	836	3.37	No	No
2142	2253	Panaewa Residence Lots	1	19.6950190	-155.0592090	94	27.5	44	1.61	No	No
1472	2253	Panaewa Residence Lots, Unit 6	1	19.6950190	-155.0592090	99	27.5	49	1.61	No	No
2143	2253	Panaewa Residence Lots	2	19.6953800	-155.0581120	96	28.3	46	1.63	No	No
1473	2253	Panaewa Residence Lots, Unit 6	2	19.6953800	-155.0581120	95	28.3	45	1.63	No	No
2144	2253	Panaewa Residence Lots	3	19.6954700	-155.0578140	96	27.5	47	1.63	No	No
1474	2253	Panaewa Residence Lots, Unit 6	3	19.6954700	-155.0578140	94	27.5	45	1.63	No	No
2145	2253	Panaewa Residence Lots	4	19.6956370	-155.0574950	96	28.0	47	1.64	No	No
1475	2253	Panaewa Residence Lots, Unit 6	4	19.6956370	-155.0574950	93	28.0	43	1.64	No	No
2146	2253	Panaewa Residence Lots	5	19.6953590	-155.0573700	96	25.5	49	1.66	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1476	2253	Panaewa Residence Lots, Unit 6	5	19.6953590	-155.0573700	94	25.5	47	1.66	No	No
2147	2253	Panaewa Residence Lots	6	19.6940060	-155.0591810	96	26.9	47	1.67	No	No
1477	2253	Panaewa Residence Lots, Unit 6	6	19.6940060	-155.0591810	102	26.9	53	1.67	No	No
2148	2253	Panaewa Residence Lots	7	19.6942830	-155.0583690	98	27.6	48	1.68	No	No
1478	2253	Panaewa Residence Lots, Unit 6	7	19.6942830	-155.0583690	97	27.6	47	1.68	No	No
2149	2253	Panaewa Residence Lots	8	19.6941860	-155.0583200	99	25.1	52	1.69	No	No
1479	2253	Panaewa Residence Lots, Unit 6	8	19.6941860	-155.0583200	97	25.1	50	1.69	No	No
2150	2253	Panaewa Residence Lots	9	19.6945610	-155.0574950	99	27.2	50	1.70	No	No
1480	2253	Panaewa Residence Lots, Unit 6	9	19.6945610	-155.0574950	98	27.2	49	1.70	No	No
2151	2253	Panaewa Residence Lots	10	19.6960250	-155.0577580	95	27.2	46	1.61	No	No
1481	2253	Panaewa Residence Lots, Unit 6	10	19.6960250	-155.0577580	97	27.2	48	1.61	No	No
2152	2253	Panaewa Residence Lots	11	19.6947350	-155.0601180	92	27.5	42	1.59	No	No
1482	2253	Panaewa Residence Lots, Unit 6	11	19.6947350	-155.0601180	95	27.5	45	1.59	No	No
1483	2265	Alii Heights, Unit 2, Ph. 2	1	19.5949611	-155.9608333	321	22.2	299	0.70	No	No
1484	2265	Alii Heights, Unit 2, Ph. 2	2	19.5947778	-155.9609861	316	25.5	290	0.68	No	No
1485	2265	Alii Heights, Unit 2, Ph. 2	3	19.5949278	-155.9596639	366	22.0	343	0.77	No	No
1486	2265	Alii Heights, Unit 2, Ph. 2	4	19.5947222	-155.9595000	382	25.4	356	0.78	No	No
1487	2265	Alii Heights, Unit 2, Ph. 2	5	19.5945806	-155.9589944	408	29.2	379	0.81	No	No
1488	2265	Alii Heights, Unit 2, Ph. 2	6	19.5945306	-155.9589472	408	26.0	382	0.81	No	No
1489	2265	Alii Heights, Unit 2, Ph. 2	7	19.5944417	-155.9589111	415	25.6	389	0.81	No	No
1490	2265	Alii Heights, Unit 2, Ph. 2	8	19.5939833	-155.9601389	359	26.3	332	0.73	No	No
1491	2265	Alii Heights, Unit 2, Ph. 2	9	19.5936611	-155.9607917	322	32.8	289	0.68	No	No
1492	2265	Alii Heights, Unit 2, Ph. 2	10	19.5937167	-155.9611083	303	24.7	278	0.66	No	No
1493	2265	Alii Heights, Unit 2, Ph. 2	11	19.5934278	-155.9621889	240	23.9	216	0.59	No	No
1494	2265	Alii Heights, Unit 2, Ph. 2	12	19.5932972	-155.9621417	240	25.7	214	0.59	No	No
1495	2265	Alii Heights, Unit 2, Ph. 2	13	19.5940694	-155.9647611	181	22.5	158	0.43	No	No
1496	2265	Alii Heights, Unit 2, Ph. 2	14	19.5942694	-155.9647917	181	21.7	159	0.44	No	No
1497	2265	Alii Heights, Unit 2, Ph. 2	15	19.5944806	-155.9630278	236	27.5	209	0.55	No	No
1498	2265	Alii Heights, Unit 2, Ph. 2	16	19.5947306	-155.9629111	243	22.7	220	0.56	No	No
1499	2274	Alii Drive Impr.	8	19.5727222	-155.9657722	36	26.3	10	0.12	Yes	No
1501	2274	Alii Drive Impr.	9	19.5717306	-155.9646472	70	25.0	45	0.17	Yes	No
1503	2279	Alii Heights, Unit 2, Ph. 3	1	19.5929639	-155.9622306	238	26.3	211	0.59	Yes	No
1504	2279	Alii Heights, Unit 2, Ph. 3	2	19.5929778	-155.9621111	238	26.0	212	0.59	Yes	No
1505	2279	Alii Heights, Unit 2, Ph. 3	3	19.5926639	-155.9620639	239	25.5	214	0.60	No	No
1506	2279	Alii Heights, Unit 2, Ph. 3	4	19.5919500	-155.9619694	247	24.3	222	0.60	No	No
1507	2279	Alii Heights, Unit 2, Ph. 3	5	19.5918222	-155.9618500	247	23.2	223	0.61	No	No
1508	2279	Alii Heights, Unit 2, Ph. 3	6	19.5911278	-155.9619194	239	25.2	214	0.61	No	No
1509	2279	Alii Heights, Unit 2, Ph. 3	7	19.5918278	-155.9626944	235	26.9	207	0.56	No	No
1510	2279	Alii Heights, Unit 2, Ph. 3	8	19.5915806	-155.9629306	227	27.0	200	0.54	No	No
1511	2279	Alii Heights, Unit 2, Ph. 3	9	19.5911333	-155.9620611	239	27.1	212	0.60	No	No
1512	2279	Alii Heights, Unit 2, Ph. 3	10	19.5908917	-155.9627361	223	26.2	197	0.56	No	No
1513	2279	Alii Heights, Unit 2, Ph. 3	11	19.5908194	-155.9624917	226	25.9	200	0.58	No	No
1514	2279	Alii Heights, Unit 2, Ph. 3	12	19.5910583	-155.9618083	241	25.0	216	0.62	No	No
1515	2279	Alii Heights, Unit 2, Ph. 3	13	19.5909250	-155.9617833	241	22.2	218	0.62	No	No
1516	2279	Alii Heights, Unit 2, Ph. 3	14	19.5908139	-155.9619000	241	27.9	213	0.62	No	No
1517	2283	Dennis Young Subdivision	1	19.7215833	-155.9933694	999	19.9	978	3.53	No	No
1518	2283	Dennis Young Subdivision	2	19.7215833	-155.9933694	999	19.9	978	3.53	No	No
1519	2308	Alii Heights, Unit 2, Ph. 4	1	19.5927111	-155.9605889	339	24.4	314	0.69	No	No
1520	2308	Alii Heights, Unit 2, Ph. 4	2	19.5925750	-155.9605639	339	23.2	315	0.69	No	No
1521	2308	Alii Heights, Unit 2, Ph. 4	3	19.5916444	-155.9604972	330	24.8	305	0.70	No	No
1522	2308	Alii Heights, Unit 2, Ph. 4	4	19.5914944	-155.9604389	334	23.8	310	0.70	No	No
1523	2308	Alii Heights, Unit 2, Ph. 4	5	19.5917833	-155.9597111	378	24.5	353	0.75	No	No
1524	2308	Alii Heights, Unit 2, Ph. 4	6	19.5919639	-155.9590222	420	24.3	396	0.79	Yes	No
1525	2330	Alii Heights, Unit 2, Ph. 5	1	19.5938944	-155.9585778	445	25.3	419	0.83	No	No
1526	2330	Alii Heights, Unit 2, Ph. 5	2	19.5925194	-155.9585667	448	25.6	422	0.82	Yes	No
1527	2330	Alii Heights, Unit 2, Ph. 5	3	19.5934167	-155.9594028	407	25.3	381	0.77	No	No
1528	2330	Alii Heights, Unit 2, Ph. 5	4	19.5934722	-155.9595250	407	25.7	381	0.76	No	No
1529	2330	Alii Heights, Unit 2, Ph. 5	5	19.5939556	-155.9584806	441	21.3	420	0.84	No	No
1530	2330	Alii Heights, Unit 2, Ph. 5	6	19.5939583	-155.9584250	441	21.5	419	0.84	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1531	2330	Alii Heights, Unit 2, Ph. 5	7	19.5939778	-155.9583778	441	21.1	420	0.84	No	No
1532	2330	Alii Heights, Unit 2, Ph. 5	8	19.5939444	-155.9583639	441	20.8	420	0.84	No	No
1533	2330	Alii Heights, Unit 2, Ph. 5	9	19.5939139	-155.9584194	441	21.1	420	0.84	No	No
1534	2330	Alii Heights, Unit 2, Ph. 5	10	19.5939028	-155.9584556	441	21.5	419	0.84	No	No
1535	2337	Kahaolino Subd. At Kalaoa	1	19.7197667	-155.9812722	1,535	22.2	1,421	4.07	No	No
1536	2337	Kahaolino Subd. At Kalaoa	2	19.7198000	-155.9813556	1,536	24.2	1,419	4.07	No	No
1537	2337	Kahaolino Subd. At Kalaoa	3	19.7210361	-155.9831056	1,468	23.8	1,351	4.03	No	No
1538	2337	Kahaolino Subd. At Kalaoa	4	19.7209611	-155.9830972	1,464	23.3	1,347	4.02	No	No
1539	2337	Kahaolino Subd. At Kalaoa	5	19.7206944	-155.9830056	1,460	24.4	1,342	4.02	No	No
1540	2355	The Beach Villas at Kahaluu	1	19.5787611	-155.9659667	19	28.0	(9)	0.08	Yes	No
1541	2406	Hilolani	1	19.6900278	-155.0629028	92	26.8	41	1.80	No	No
1542	2406	Hilolani	2	19.6900222	-155.0630306	92	22.3	46	1.80	No	No
1543	2406	Hilolani	3	19.6891333	-155.0628361	96	25.1	47	1.86	No	No
1544	2406	Hilolani	4	19.6891194	-155.0629722	96	26.9	46	1.86	Yes	No
1545	2406	Hilolani	5	19.6880861	-155.0635833	96	31.3	39	1.91	No	No
1546	2406	Hilolani	6	19.6880056	-155.0638333	96	30.5	40	1.91	No	No
1547	2406	Hilolani	7	19.6899722	-155.0637361	91	29.7	36	1.79	No	No
1548	2406	Hilolani	8	19.6899611	-155.0638611	91	27.6	39	1.78	No	No
1549	2406	Hilolani	9	19.6890667	-155.0637278	91	24.5	42	1.84	No	No
1550	2406	Hilolani	10	19.6890528	-155.0638583	91	28.2	38	1.84	No	No
1551	2482	Mamalahoa Highway	1	19.4894444	-155.9091667	1,490	32.9	1,456	1.10	Yes	No
1552	2482	Mamalahoa Highway	2	19.4888889	-155.9100000	1,455	48.5	1,405	1.03	No	No
1553	2482	Mamalahoa Highway	3	19.4886111	-155.9091667	1,470	41.2	1,427	1.06	No	No
1554	2482	Mamalahoa Highway	4	19.4883333	-155.9088889	1,475	47.2	1,426	1.06	No	No
1555	2482	Mamalahoa Highway	5	19.4919444	-155.9141667	1,405	57.5	1,346	1.04	No	No
2154	2488	Kahaopea Gardens Subdivision	A	19.6895780	-155.0709710	160	35.1	100	1.67	No	No
2153	2488	Kahaopea Gardens Subdivision	B	19.6895790	-155.0710470	160	40.1	95	1.67	No	No
2155	2488	Kahaopea Gardens Subdivision	C	19.6887810	-155.0708710	166	36.1	105	1.73	No	No
2156	2488	Kahaopea Gardens Subdivision	D	19.6880490	-155.0708040	170	36.1	108	1.78	No	No
2157	2488	Kahaopea Gardens Subdivision	E	19.6874000	-155.0707890	173	35.8	111	1.82	No	No
2159	2488	Kahaopea Gardens Subdivision	F	19.6862480	-155.0706620	175	36.0	113	1.90	No	No
2158	2488	Kahaopea Gardens Subdivision	G	19.6858540	-155.0706180	174	37.1	111	1.93	No	No
1563	2496	Iiili Street, north of Kona Palisades Subdivision	1	19.7197850	-155.9812900	1,501	26.5	1,382	4.07	No	No
1564	2496	Iiili Street, north of Kona Palisades Subdivision	2	19.7190130	-155.9813790	1,472	22.1	1,358	4.04	Yes	No
1565	2673	Homestead Road Improvements	1	19.7172806	-156.0085583	498	27.2	470	2.61	No	No
1566	1620-A	Keekee Estates - phase II	1	19.5150722	-155.9269528	1,261	27.0	1,232	1.67	No	No
1567	1620-A	Keekee Estates - phase II	2	19.5138806	-155.9270833	1,266	27.0	1,237	1.63	No	No
1568	1620-A	Keekee Estates - phase II	3	19.5146306	-155.9277722	1,243	26.0	1,215	1.61	No	No
1569	1620-A	Keekee Estates - phase II	4	19.5135806	-155.9278056	1,243	26.0	1,215	1.58	No	No
1570	1620-A	Keekee Estates - phase II	5	19.5148556	-155.9267917	1,261	20.0	1,239	1.67	No	No
1571	1620-A	Keekee Estates - phase II	6	19.5141333	-155.9269000	1,265	23.0	1,241	1.65	No	No
1572	1620-A	Keekee Estates - phase II	7	19.5133861	-155.9270111	1,272	23.0	1,247	1.63	No	No
1573	NA	County Baseyard (Kau)	1	19.0663778	-155.6124778	1,069	21.0	1,040	3.82	No	No
1574	NA	Golden Shower Tree Estates	1	19.6790972	-155.0993056	503	24.0	448	2.84	No	No
1575	NA	Holualoa Neighborhood Facilities	1	19.6224139	-155.9485556	1,428	19.0	1,009	2.12	No	No
1576	NA	Kailua Parking Lot	1	19.6404528	-155.9949528	18	15.7	2	0.04	Yes	No
1577	NA	Kainaliu Parking Lot	1	19.5322222	-155.9258333	1,454	19.0	941	1.95	No	No
1578	NA	Kalamauka Subdivision	1	19.6075000	-155.9541667	898	15.0	882	1.35	No	No
1579	NA	Kalani Sunset, Leilani	1	19.6089583	-155.9620139	436	14.0	421	0.89	No	No
1580	NA	Kaloko Light Industrial	1	19.6905170	-156.0227140	92	17.8	74	0.73	No	No
1581	NA	Kamehameha III Road (makai)	1	19.5633333	-155.9619444	20	8.0	12	0.06	No	No
1582	NA	Kaumana City S/D, Incr. 3	1	19.6866556	-155.1775556	1,801	20.0	1,716	6.30	No	No
1583	NA	Kealakehe Heights S/D	1	19.6708333	-155.9780556	938	15.4	922	2.41	No	No
1584	NA	Kealakehe Houselots, Unit I	1	19.6727778	-155.9855556	758	22.0	735	2.32	No	No
1585	NA	Kealakehua Ranch Subd., Incr. 1 - unit 1	1	19.4888111	-155.9119806	1,402	23.0	1,377	0.94	No	No
1586	NA	Keauhou Subdivision	1	19.5642583	-155.9637250	31	9.0	22	0.05	No	No
1587	NA	Keauhou Uka Subdivision, Unit II	1	19.5919444	-155.9555556	651	19.0	632	1.01	No	No
1588	NA	Kee Kee Subdivision	1	19.5144778	-155.9260306	1,312	19.0	1,291	1.71	No	No
1589	NA	Keopu Heights Subdiv.	1	19.6494444	-155.9688889	818	15.0	802	1.72	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1590	NA	Keopu Mauka Drive Drywells	1	19.6558333	-155.9566667	1,523	12.0	1,225	2.63	No	No
1591	NA	Kilohana S/D & Komohana Kai S/D	1	19.6127778	-155.9705556	191	21.0	170	0.57	No	No
1592	NA	Kona Acres Subdiv. (Makai)	1	19.7144444	-155.9994444	751	2.6	747	2.90	No	No
1593	NA	Kona Acres Subdiv. (Mauka)	1	19.7173083	-155.9850500	1,336	9.2	1,326	3.78	No	No
1594	NA	Kona Chocho Estates & Kona Mac Acres	1	19.6747222	-155.9851389	785	18.0	766	2.37	No	No
1595	NA	Kona Heavens Subdivision Units I & II	1	19.6966667	-155.9836111	1,082	13.0	1,068	3.08	No	No
1596	NA	Kona Heights S/D & Kailua View Est. S/D	1	19.6377778	-155.9797222	296	11.0	284	0.72	No	No
1597	NA	Kona Heights Subdiv. (Makai)	1	19.6377778	-155.9825000	213	15.0	198	0.55	Yes	No
1599	NA	Kona Orchard Subdivision	1	19.6247222	-155.9625000	684	16.0	667	1.50	No	No
1600	NA	Kona Palisades Subdiv. (Makai)	1	19.7241667	-156.0180556	326	12.9	313	2.14	No	No
1601	NA	Kona Palisades Subdiv. (Mauka)	1	19.7197222	-155.9955556	899	6.3	891	3.33	No	No
1602	NA	Kona Palisades Subdiv. (Middle)	1	19.7211111	-156.0130556	430	16.5	413	2.41	No	No
1603	NA	Kona Scenic Subdivision	1	19.5177222	-155.9272972	1,210	10.0	1,198	1.72	No	No
1604	NA	Konalani St. Drywell	1	19.6624240	-155.9800630	699	20.0	678	1.84	No	No
1605	NA	Makolea Street Drywells	1	19.5788889	-155.9661111	20	1.0	19	0.07	Yes	No
1606	NA	Nani Kailua Drive	1	19.6350306	-155.9828639	212	23.0	189	0.47	No	No
1607	NA	Pacific Paradise Gardens Subd.	1	19.5684889	-155.1156528	1,502	23.8	1,414	10.01	No	No
1608	NA	Paniolo Country Subdivision	1	19.6802778	-155.9830556	889	20.0	868	2.59	No	No
1609	NA	County Baseyard (Kau)	2	19.0661000	-155.6126194	1,071	25.0	1,038	3.83	No	No
1610	NA	Golden Shower Tree Estates	2	19.6779444	-155.0992028	492	25.0	436	2.90	No	No
1611	NA	Holualoa Neighborhood Facilities	2	19.6221639	-155.9485611	1,425	17.0	1,008	2.11	No	No
1612	NA	Kailua Parking Lot	2	19.6405917	-155.9944778	14	10.4	4	0.06	Yes	No
1613	NA	Kalamauka Subdivision	2	19.6061111	-155.9538889	910	14.0	895	1.36	No	No
1614	NA	Kalani Sunset, Leilani	2	19.6094444	-155.9606944	514	17.0	496	0.99	No	No
1615	NA	Kaloko Light Industrial	2	19.6903990	-156.0226300	91	18.8	72	0.74	Yes	No
1616	NA	Kaumana City S/D, Incr. 3	2	19.6863694	-155.1786000	1,859	20.0	1,772	6.37	No	No
1617	NA	Kealakehe Heights S/D	2	19.6705556	-155.9788889	893	17.4	875	2.36	No	No
1618	NA	Kealakehe Houselots, Unit I	2	19.6725000	-155.9855556	758	22.0	735	2.32	Yes	No
1619	NA	Kealakeua Ranch Subd., Incr. 1 - unit 1	2	19.4887770	-155.9119640	1,397	22.0	1,374	0.94	No	No
1620	NA	Keauhou Subdivision	2	19.5651444	-155.9643611	36	6.0	30	0.06	Yes	No
1621	NA	Keauhou Uka Subdivision, Unit II	2	19.5911111	-155.9563889	618	27.0	591	0.94	No	No
1622	NA	Kee Kee Subdivision	2	19.5145778	-155.9254833	1,336	15.0	1,319	1.75	No	No
1623	NA	Keopu Heights Subdiv.	2	19.6510000	-155.9660028	955	15.0	939	1.94	No	No
1624	NA	Keopu Mauka Drive Drywells	2	19.6556944	-155.9563889	1,523	14.0	1,223	2.64	No	No
1625	NA	Kilohana S/D & Komohana Kai S/D	2	19.6130556	-155.9697222	222	12.0	210	0.63	Yes	No
1626	NA	Kona Acres Subdiv. (Makai)	2	19.7130556	-155.9988889	761	18.8	742	2.87	No	No
1627	NA	Kona Acres Subdiv. (Mauka)	2	19.7167389	-155.9816583	1,485	14.6	1,378	3.94	Yes	No
1628	NA	Kona Chocho Estates & Kona Mac Acres	2	19.6748611	-155.9850000	786	15.0	770	2.38	No	No
1629	NA	Kona Heavens Subdivision Units I & II	2	19.6958333	-155.9836111	1,084	27.0	1,056	3.04	No	No
1630	NA	Kona Heights S/D & Kailua View Est. S/D	2	19.6380556	-155.9794444	296	8.0	287	0.74	No	No
1631	NA	Kona Heights Subdiv. (Makai)	2	19.6377778	-155.9816667	243	12.0	230	0.60	No	No
1633	NA	Kona Orchard Subdivision	2	19.6238889	-155.9608333	780	15.0	764	1.55	No	No
1634	NA	Kona Palisades Subdiv. (Makai)	2	19.7222222	-156.0169444	356	12.6	342	2.18	No	No
1635	NA	Kona Palisades Subdiv. (Mauka)	2	19.7200000	-155.9933333	988	9.4	978	3.46	No	No
1636	NA	Kona Palisades Subdiv. (Middle)	2	19.7202778	-156.0127778	431	18.3	412	2.42	No	No
1637	NA	Kona Scenic Subdivision	2	19.5168861	-155.9271528	1,216	17.0	1,197	1.70	No	No
1638	NA	Makolea Street Drywells	2	19.5788889	-155.9650000	49	0.0	49	0.13	No	No
1639	NA	Nani Kailua Drive	2	19.6361806	-155.9804167	286	20.0	265	0.64	Yes	No
1640	NA	Pacific Paradise Gardens Subd.	2	19.5700667	-155.1137528	1,526	22.2	1,441	9.85	No	No
1641	NA	Paniolo Country Subdivision	2	19.6791667	-155.9827778	901	27.0	873	2.58	Yes	No
1642	NA	Golden Shower Tree Estates	3	19.6778222	-155.0991917	497	23.0	443	2.91	No	No
1643	NA	Holualoa Neighborhood Facilities	3	19.6223222	-155.9482306	1,446	16.0	1,030	2.13	No	No
1644	NA	Kalamauka Subdivision	3	19.6066667	-155.9527778	949	16.0	932	1.43	No	No
1645	NA	Kalani Sunset, Leilani	3	19.6086111	-155.9613889	473	20.0	452	0.92	Yes	No
1647	NA	Kealakehe Houselots, Unit I	3	19.6722222	-155.9855556	743	17.0	725	2.31	Yes	No
1648	NA	Kealakeua Ranch Subd., Incr. 1 - unit 1	3	19.4887361	-155.9136250	1,312	25.0	1,286	0.87	No	No
1649	NA	Keauhou Subdivision	3	19.5650917	-155.9647972	34	12.0	22	0.05	No	No
1650	NA	Keopu Heights Subdiv.	3	19.6522472	-155.9628111	1,133	15.0	1,116	2.16	No	No
1651	NA	Keopu Mauka Drive Drywells	3	19.6565278	-155.9548611	1,626	13.0	1,327	2.75	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1652	NA	Kilohana S/D & Komohana Kai S/D	3	19.6122222	-155.9702778	199	1.0	198	0.57	No	No
1653	NA	Kona Acres Subdiv. (Makai)	3	19.7111111	-155.9994444	733	9.0	723	2.76	No	No
1654	NA	Kona Acres Subdiv. (Mauka)	3	19.7169417	-155.9887167	1,136	13.3	1,122	3.56	No	No
1655	NA	Kona Chocho Estates & Kona Mac Acres	3	19.6750000	-155.9843056	809	17.0	791	2.42	No	No
1656	NA	Kona Heavens Subdivision Units I & II	3	19.6963889	-155.9822222	1,149	18.0	1,128	3.14	No	No
1657	NA	Kona Heights S/D & Kailua View Est. S/D	3	19.6380556	-155.9792400	296	11.0	284	0.75	No	No
1658	NA	Kona Heights Subdiv. (Makai)	3	19.6380556	-155.9816667	219	10.0	208	0.61	No	No
1660	NA	Kona Palisades Subdiv. (Makai)	3	19.7230556	-156.0155556	373	12.3	360	2.28	No	No
1661	NA	Kona Palisades Subdiv. (Mauka)	3	19.7188889	-155.9883333	1,181	7.0	1,173	3.66	No	No
1662	NA	Kona Palisades Subdiv. (Middle)	3	19.7200000	-156.0108333	465	19.0	445	2.54	No	No
1663	NA	Kona Scenic Subdivision	3	19.5160028	-155.9270111	1,238	14.0	1,222	1.69	Yes	No
1664	NA	Paniolo Country Subdivision	3	19.6780630	-155.9860270	763	14.0	748	2.36	Yes	No
1665	NA	Holualoa Neighborhood Facilities	4	19.6221000	-155.9482528	1,441	17.0	1,024	2.12	No	No
1666	NA	Kalamauka Subdivision	4	19.6063889	-155.9527778	953	10.0	942	1.43	No	No
1667	NA	Kalani Sunset, Leilani	4	19.6090278	-155.9597917	566	23.0	542	1.03	No	No
1668	NA	Kaloko Light Industrial	4	19.6905556	-156.0213889	114	20.3	94	0.82	Yes	No
1669	NA	Kealakehe Houselots, Unit I	4	19.6719444	-155.9852778	738	20.0	717	2.30	No	No
1670	NA	Kealakekua Ranch Subd., Incr. 1 - unit 1	4	19.4881361	-155.9136444	1,277	22.0	1,254	0.83	No	No
1671	NA	Keauhou Subdivision	4	19.5652778	-155.9648611	34	6.0	28	0.06	No	No
1672	NA	Keopu Heights Subdiv.	4	19.6536361	-155.9595056	1,335	15.0	1,318	2.39	No	No
1673	NA	Kilohana S/D & Komohana Kai S/D	4	19.6125000	-155.9697222	221	15.0	206	0.61	Yes	No
1674	NA	Kona Acres Subdiv. (Makai)	4	19.7166667	-155.9927778	987	10.8	975	3.34	No	No
1675	NA	Kona Acres Subdiv. (Mauka)	4	19.7154417	-155.9862500	1,256	13.7	1,241	3.64	No	No
1676	NA	Kona Chocho Estates & Kona Mac Acres	4	19.6750000	-155.9841667	809	15.0	793	2.43	No	No
1677	NA	Kona Heavens Subdivision Units I & II	4	19.6950000	-155.9816667	1,129	17.0	1,109	3.11	No	No
1678	NA	Kona Heights S/D & Kailua View Est. S/D	4	19.6380556	-155.9791667	316	14.0	301	0.76	No	No
1679	NA	Kona Heights Subdiv. (Makai)	4	19.6377778	-155.9808333	261	22.0	238	0.65	Yes	No
1681	NA	Kona Palisades Subdiv. (Mauka)	4	19.7186111	-155.9880556	1,193	6.5	1,185	3.67	No	No
1682	NA	Kona Palisades Subdiv. (Middle)	4	19.7208333	-156.0097222	488	14.4	473	2.62	No	No
1683	NA	Kona Scenic Subdivision	4	19.5176972	-155.9262139	1,299	6.0	1,291	1.78	No	No
1684	NA	Paniolo Country Subdivision	4	19.6791667	-155.9805556	953	17.0	935	2.72	No	No
1685	NA	Holualoa Neighborhood Facilities	5	19.6218361	-155.9485278	1,427	16.0	1,011	2.10	No	No
1686	NA	Kalamauka Subdivision	5	19.6063889	-155.9513889	1,044	7.0	1,036	1.52	No	No
1687	NA	Kalani Sunset, Leilani	5	19.6080556	-155.9606250	513	20.0	492	0.96	No	No
1688	NA	Kaloko Light Industrial	5	19.6902778	-156.0213890	113	13.9	99	0.81	Yes	No
1689	NA	Kealakehe Houselots, Unit I	5	19.6713889	-155.9852778	731	17.0	713	2.26	No	No
1690	NA	Kealakekua Ranch Subd., Incr. 1 - unit 1	5	19.4875194	-155.9144583	1,216	21.0	1,194	0.77	No	No
1691	NA	Keauhou Subdivision	5	19.5652472	-155.9643694	36	7.0	29	0.07	No	No
1692	NA	Kilohana S/D & Komohana Kai S/D	5	19.6127778	-155.9688889	250	14.0	236	0.66	Yes	No
1693	NA	Kona Acres Subdiv. (Makai)	5	19.7169444	-155.9947222	922	10.7	910	3.25	No	No
1694	NA	Kona Acres Subdiv. (Mauka)	5	19.7151556	-155.9878000	1,179	13.7	1,165	3.54	No	No
1695	NA	Kona Chocho Estates & Kona Mac Acres	5	19.6752778	-155.9838889	824	17.0	806	2.45	No	No
1696	NA	Kona Heavens Subdivision Units I & II	5	19.6941667	-155.9833333	1,043	3.0	1,039	2.99	No	No
1697	NA	Kona Heights S/D & Kailua View Est. S/D	5	19.6386111	-155.9786111	326	8.0	317	0.81	No	No
1698	NA	Kona Heights Subdiv. (Makai)	5	19.6380556	-155.9808333	262	14.0	247	0.66	No	No
1700	NA	Kona Palisades Subdiv. (Mauka)	5	19.7183333	-155.9850000	1,344	12.4	1,331	3.82	No	No
1701	NA	Kona Palisades Subdiv. (Middle)	5	19.7197222	-156.0080556	536	16.5	518	2.71	No	No
1702	NA	Kona Scenic Subdivision	5	19.5168194	-155.9261028	1,302	11.0	1,289	1.76	No	No
1703	NA	Paniolo Country Subdivision	5	19.6777778	-155.9825000	893	19.0	873	2.58	No	No
1704	NA	Holualoa Neighborhood Facilities	6	19.6218833	-155.9480778	1,455	18.0	1,037	2.13	No	No
1705	NA	Kalani Sunset, Leilani	6	19.6070139	-155.9597222	570	20.0	549	0.99	No	No
1706	NA	Kaloko Light Industrial	6	19.6905560	-156.0205560	142	17.5	124	0.87	Yes	No
1707	NA	Kealakehe Houselots, Unit I	6	19.6708333	-155.9847222	726	18.0	707	2.24	Yes	No
1708	NA	Keauhou Subdivision	6	19.5650056	-155.9634528	38	7.0	31	0.10	No	No
1709	NA	Kilohana S/D & Komohana Kai S/D	6	19.6113889	-155.9716667	155	19.0	136	0.46	No	No
1710	NA	Kona Acres Subdiv. (Makai)	6	19.7172222	-155.9969444	861	12.5	847	3.15	No	No
1711	NA	Kona Acres Subdiv. (Mauka)	6	19.7159139	-155.9903694	1,062	11.4	1,050	3.43	No	No
1712	NA	Kona Chocho Estates & Kona Mac Acres	6	19.6751389	-155.9833333	836	19.0	816	2.49	No	No
1713	NA	Kona Heavens Subdivision Units I & II	6	19.6941667	-155.9813889	1,116	15.0	1,098	3.10	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1714	NA	Kona Heights S/D & Kailua View Est. S/D	6	19.6380556	-155.9783333	337	14.0	322	0.81	No	No
1715	NA	Kona Heights Subdiv. (Makai)	6	19.6377778	-155.9805556	273	11.0	261	0.67	No	No
1717	NA	Kona Palisades Subdiv. (Middle)	6	19.7208333	-156.0072222	572	16.6	555	2.78	No	No
1718	NA	Kona Scenic Subdivision	6	19.5188583	-155.9240333	1,376	13.0	1,352	1.94	Yes	No
1719	NA	Kalani Sunset, Leilani	7	19.6073611	-155.9588194	619	18.0	600	1.06	No	No
1720	NA	Kaloko Light Industrial	7	19.6907640	-156.0201600	158	14.2	144	0.90	Yes	No
1721	NA	Kealakehe Houselots, Unit I	7	19.6722222	-155.9869444	710	22.0	687	2.23	No	No
1722	NA	Kilohana S/D & Komohana Kai S/D	7	19.6105556	-155.9711111	154	4.0	150	0.46	Yes	No
1723	NA	Kona Acres Subdiv. (Makai)	7	19.7150000	-155.9972222	823	17.4	805	3.04	No	No
1724	NA	Kona Acres Subdiv. (Mauka)	7	19.7159194	-155.9914111	1,039	15.2	1,023	3.38	No	No
1725	NA	Kona Chocho Estates & Kona Mac Acres	7	19.6750000	-155.9831944	837	17.0	819	2.50	No	No
1726	NA	Kona Heavens Subdivision Units I & II	7	19.6930556	-155.9819444	1,063	10.0	1,052	3.02	No	No
1727	NA	Kona Heights S/D & Kailua View Est. S/D	7	19.6383333	-155.9775000	370	12.0	357	0.87	No	No
1729	NA	Kona Palisades Subdiv. (Middle)	7	19.7197222	-156.0041667	631	17.5	613	2.93	Yes	No
1730	NA	Kona Scenic Subdivision	7	19.5179167	-155.9237694	1,411	15.0	1,394	1.93	No	No
1731	NA	Kalani Sunset, Leilani	8	19.6075000	-155.9586111	621	15.0	605	1.07	No	No
1732	NA	Kaloko Light Industrial	8	19.6902778	-156.0208333	130	7.7	121	0.85	Yes	No
1733	NA	Kealakehe Houselots, Unit I	8	19.6716667	-155.9872222	695	19.0	675	2.21	No	No
1734	NA	Kilohana S/D & Komohana Kai S/D	8	19.6111111	-155.9691667	230	22.0	208	0.58	No	No
1735	NA	Kona Acres Subdiv. (Makai)	8	19.7155556	-155.9950000	887	16.8	870	3.18	No	No
1736	NA	Kona Chocho Estates & Kona Mac Acres	8	19.6748611	-155.9818056	892	23.0	868	2.56	No	No
1737	NA	Kona Heavens Subdivision Units I & II	8	19.6927778	-155.9813898	1,061	8.0	1,052	3.05	Yes	No
1738	NA	Kona Heights S/D & Kailua View Est. S/D	8	19.6388889	-155.9775000	367	11.0	355	0.88	No	No
1739	NA	Kona Palisades Subdiv. (Middle)	8	19.7191667	-156.0008333	735	10.5	724	3.06	Yes	No
1740	NA	Kona Scenic Subdivision	8	19.5180778	-155.9229750	1,436	3.0	1,431	1.98	No	No
1741	NA	Kalani Sunset, Leilani	9	19.6091667	-155.9588889	634	25.0	608	1.09	No	No
1742	NA	Kaloko Light Industrial	9	19.6905556	-156.0200000	158	14.3	144	0.90	Yes	No
1743	NA	Kealakehe Houselots, Unit I	9	19.6713889	-155.9869444	695	19.0	675	2.23	Yes	No
1744	NA	Kilohana S/D & Komohana Kai S/D	9	19.6113889	-155.9675000	285	13.0	271	0.67	No	No
1745	NA	Kona Acres Subdiv. (Makai)	9	19.7144444	-155.9930556	957	16.5	939	3.23	No	No
1746	NA	Kona Chocho Estates & Kona Mac Acres	9	19.6748611	-155.9818056	892	23.0	868	2.56	No	No
1747	NA	Kona Heavens Subdivision Units I & II	9	19.6913889	-155.9819444	1,027	14.0	1,012	2.96	No	No
1748	NA	Kona Heights S/D & Kailua View Est. S/D	9	19.6383333	-155.9769444	382	6.0	375	0.90	No	No
1749	NA	Kona Scenic Subdivision	9	19.5185194	-155.9221667	1,453	10.0	1,162	2.05	Yes	No
1750	NA	Kalani Sunset, Leilani	10	19.6091667	-155.9587500	634	18.0	615	1.10	No	No
1751	NA	Kaloko Light Industrial	10	19.6886111	-156.0205556	131	19.7	111	0.84	Yes	No
1752	NA	Kealakehe Houselots, Unit I	10	19.6708333	-155.9866667	685	18.0	666	2.20	No	No
1753	NA	Kilohana S/D & Komohana Kai S/D	10	19.6100000	-155.9711111	154	17.0	137	0.43	No	No
1754	NA	Kona Acres Subdiv. (Makai)	10	19.7136111	-155.9947222	875	13.0	861	3.11	Yes	No
1755	NA	Kona Chocho Estates & Kona Mac Acres	10	19.6741667	-155.9819444	885	23.0	861	2.51	No	No
1756	NA	Kona Heavens Subdivision Units I & II	10	19.6900000	-155.9813889	1,055	11.0	1,043	2.95	No	No
1757	NA	Kona Heights S/D & Kailua View Est. S/D	10	19.6388889	-155.9766667	389	16.0	372	0.93	No	No
1758	NA	Kaloko Light Industrial	11	19.6886111	-156.0200000	145	10.8	134	0.88	Yes	No
1759	NA	Kealakehe Houselots, Unit I	11	19.6705556	-155.9863889	687	18.0	668	2.19	Yes	No
1760	NA	Kilohana S/D & Komohana Kai S/D	11	19.6102778	-155.9700000	179	21.0	158	0.50	No	No
1761	NA	Kona Acres Subdiv. (Makai)	11	19.7136111	-155.9969444	807	18.2	788	3.00	No	No
1762	NA	Kona Chocho Estates & Kona Mac Acres	11	19.6741667	-155.9819444	885	23.0	861	2.51	No	No
1763	NA	Kona Heavens Subdivision Units I & II	11	19.6911111	-155.9788889	1,192	3.0	1,188	3.13	No	No
1764	NA	Kona Heights S/D & Kailua View Est. S/D	11	19.6386111	-155.9761111	398	16.0	381	0.96	No	No
1765	NA	Kaloko Light Industrial	12	19.6888889	-156.0194444	158	15.9	142	0.92	Yes	No
1766	NA	Kealakehe Houselots, Unit I	12	19.6708333	-155.9866667	686	17.0	668	2.20	No	No
1767	NA	Kilohana S/D & Komohana Kai S/D	12	19.6102778	-155.9686111	240	2.0	238	0.57	No	No
1768	NA	Kona Acres Subdiv. (Makai)	12	19.7116667	-155.9963889	810	20.0	790	2.95	No	No
1769	NA	Kona Chocho Estates & Kona Mac Acres	12	19.6741667	-155.9812500	906	20.0	885	2.53	No	No
1770	NA	Kona Heights S/D & Kailua View Est. S/D	12	19.6391667	-155.9761111	402	16.0	385	0.97	Yes	No
1771	NA	Kaloko Light Industrial	13	19.6886111	-156.0200000	145	16.8	127	0.88	Yes	No
1772	NA	Kealakehe Houselots, Unit I	13	19.6705556	-155.9861111	693	15.0	677	2.19	No	No
1773	NA	Kilohana S/D & Komohana Kai S/D	13	19.6105556	-155.9680556	266	22.0	244	0.61	No	No
1774	NA	Kona Acres Subdiv. (Makai)	13	19.7119444	-155.9941667	881	19.0	861	3.08	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1775	NA	Kona Chocho Estates & Kona Mac Acres	13	19.6743750	-155.9804167	935	20.0	914	2.56	No	No
1776	NA	Kona Heights S/D & Kailua View Est. S/D	13	19.6391667	-155.9755556	412	15.0	396	1.01	No	No
1777	NA	Kaloko Light Industrial	14	19.6888889	-156.0194444	158	16.3	142	0.92	Yes	No
1778	NA	Kealakehe Houselots, Unit I	14	19.6708333	-155.9861111	702	15.0	686	2.21	No	No
1779	NA	Kilohana S/D & Komohana Kai S/D	14	19.6108333	-155.9694444	298	20.0	277	0.68	No	No
1780	NA	Kona Acres Subdiv. (Makai)	14	19.7122222	-155.9927778	951	9.3	941	3.16	No	No
1781	NA	Kona Chocho Estates & Kona Mac Acres	14	19.6730556	-155.9812500	895	21.0	873	2.46	No	No
1782	NA	Kona Heights S/D & Kailua View Est. S/D	14	19.6391667	-155.9758333	408	13.0	394	0.99	No	No
1783	NA	Kaloko Light Industrial	15	19.6869444	-156.0194444	152	16.3	135	0.86	Yes	No
1784	NA	Kilohana S/D & Komohana Kai S/D	15	19.6094444	-155.9694444	187	4.0	183	0.49	No	No
1785	NA	Kona Chocho Estates & Kona Mac Acres	15	19.6730556	-155.9809028	903	21.0	881	2.47	No	No
1786	NA	Kona Heights S/D & Kailua View Est. S/D	15	19.6391667	-155.9747222	423	13.0	409	1.06	No	No
1787	NA	Kaloko Light Industrial	16	19.6869444	-156.0188889	160	17.4	142	0.89	Yes	No
1788	NA	Kilohana S/D & Komohana Kai S/D	16	19.6091667	-155.9691667	191	1.0	190	0.49	No	No
1789	NA	Kona Chocho Estates & Kona Mac Acres	16	19.6728472	-155.9813889	894	24.0	869	2.44	No	No
1790	NA	Kona Heights S/D & Kailua View Est. S/D	16	19.6394444	-155.9747222	429	6.0	422	1.06	No	No
1791	NA	Kaloko Light Industrial	17	19.6869444	-156.0188889	160	16.2	143	0.89	Yes	No
1792	NA	Kilohana S/D & Komohana Kai S/D	17	19.6097222	-155.9675000	261	14.0	247	0.61	No	No
1793	NA	Kona Chocho Estates & Kona Mac Acres	17	19.6722222	-155.9819444	845	18.0	826	2.39	No	No
1794	NA	Kona Heights S/D & Kailua View Est. S/D	17	19.6394444	-155.9741667	450	14.0	435	1.10	No	No
1795	NA	Kaloko Light Industrial	18	19.6866667	-156.0194444	145	16.1	128	0.85	Yes	No
1796	NA	Kilohana S/D & Komohana Kai S/D	18	19.6088889	-155.9702778	137	20.0	117	0.42	No	No
1797	NA	Kona Chocho Estates & Kona Mac Acres	18	19.6722222	-155.9819444	845	18.0	826	2.39	No	No
1798	NA	Kona Heights S/D & Kailua View Est. S/D	18	19.6397222	-155.9736111	461	2.0	458	1.14	No	No
1799	NA	Kaloko Light Industrial	19	19.6866667	-156.0200000	125	22.6	102	0.83	Yes	No
1800	NA	Kilohana S/D & Komohana Kai S/D	19	19.6083333	-155.9697222	143	20.0	123	0.43	Yes	No
1801	NA	Kona Chocho Estates & Kona Mac Acres	19	19.6719444	-155.9827778	809	17.0	791	2.35	Yes	No
1802	NA	Kona Heights S/D & Kailua View Est. S/D	19	19.6394444	-155.9733333	470	12.0	457	1.15	No	No
1803	NA	Kaloko Light Industrial	20	19.6863889	-156.0202778	117	18.2	99	0.80	Yes	No
1804	NA	Kilohana S/D & Komohana Kai S/D	20	19.6088889	-155.9680556	228	2.0	226	0.55	No	No
1805	NA	Kona Chocho Estates & Kona Mac Acres	20	19.6719444	-155.9827778	809	18.0	790	2.35	Yes	No
1806	NA	Kona Heights S/D & Kailua View Est. S/D	20	19.6394444	-155.9730556	470	12.0	457	1.17	No	No
1807	NA	Kaloko Light Industrial	21	19.6850000	-156.0197222	116	22.4	93	0.75	Yes	No
1808	NA	Kona Chocho Estates & Kona Mac Acres	21	19.6719444	-155.9806944	867	14.0	852	2.40	No	No
1809	NA	Kona Heights S/D & Kailua View Est. S/D	21	19.6400000	-155.9733333	474	9.0	464	1.16	No	No
1810	NA	Kaloko Light Industrial	22	19.6847222	-156.0191667	125	15.8	109	0.76	Yes	No
1811	NA	Kona Chocho Estates & Kona Mac Acres	22	19.6713194	-155.9811806	839	22.0	816	2.35	No	No
1812	NA	Kona Heights S/D & Kailua View Est. S/D	22	19.6400000	-155.9725000	520	12.0	507	1.21	Yes	No
1813	NA	Kaloko Light Industrial	23	19.6850000	-156.0183333	136	15.9	120	0.81	Yes	No
1814	NA	Kona Chocho Estates & Kona Mac Acres	23	19.6713889	-155.9809028	843	19.0	823	2.36	No	No
1815	NA	Kona Heights S/D & Kailua View Est. S/D	23	19.6402778	-155.9725000	527	14.0	512	1.22	No	No
1816	NA	Kaloko Light Industrial	24	19.6847222	-156.0183333	136	16.4	120	0.80	Yes	No
1817	NA	Kona Chocho Estates & Kona Mac Acres	24	19.6704861	-155.9818750	794	16.0	777	2.28	Yes	No
1818	NA	Kona Heights S/D & Kailua View Est. S/D	24	19.6394444	-155.9716667	555	14.0	540	1.25	No	No
1819	NA	Kaloko Light Industrial	25	19.6847222	-156.0191667	125	17.7	107	0.76	Yes	No
1820	NA	Kona Chocho Estates & Kona Mac Acres	25	19.6705556	-155.9820833	788	16.0	771	2.28	Yes	No
1821	NA	Kona Heights S/D & Kailua View Est. S/D	25	19.6402778	-155.9713889	576	15.0	560	1.29	Yes	No
1822	NA	Kaloko Light Industrial	26	19.6844444	-156.0194444	121	22.5	98	0.73	Yes	No
1823	NA	Kona Chocho Estates & Kona Mac Acres	26	19.6704167	-155.9818750	794	21.0	772	2.27	Yes	No
1824	NA	Kona Heights S/D & Kailua View Est. S/D	26	19.6394444	-155.9711111	590	13.0	576	1.29	No	No
1825	NA	Kona Chocho Estates & Kona Mac Acres	27	19.6702778	-155.9818750	789	20.0	768	2.27	Yes	No
1826	NA	Kona Heights S/D & Kailua View Est. S/D	27	19.6394444	-155.9711111	590	15.0	574	1.29	No	No
1827	NA	Kona Chocho Estates & Kona Mac Acres	28	19.6701389	-155.9827083	763	20.0	742	2.24	No	No
1828	NA	Kona Heights S/D & Kailua View Est. S/D	28	19.6397222	-155.9702778	605	14.0	590	1.34	No	No
1829	NA	Kona Chocho Estates & Kona Mac Acres	29	19.6700000	-155.9826389	763	19.0	743	2.23	No	No
1830	NA	Kona Heights S/D & Kailua View Est. S/D	29	19.6405556	-155.9705556	607	10.0	596	1.35	No	No
1831	NA	Kona Chocho Estates & Kona Mac Acres	30	19.6699306	-155.9827083	762	20.0	741	2.22	No	No
1832	NA	Kona Heights S/D & Kailua View Est. S/D	30	19.6405556	-155.9702778	617	13.0	603	1.36	No	No
1833	NA	Kona Chocho Estates & Kona Mac Acres	31	19.6697222	-155.9816667	794	22.0	771	2.24	No	No

Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai'i

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1834	NA	Kona Heights S/D & Kailua View Est. S/D	31	19.6402778	-155.9697222	627	11.0	615	1.39	No	No
1835	NA	Kona Chocho Estates & Kona Mac Acres	32	19.6688889	-155.9822222	784	20.0	763	2.17	No	No
1836	NA	Kona Heights S/D & Kailua View Est. S/D	32	19.6405556	-155.9694444	631	13.0	617	1.41	No	No
1837	NA	Kona Heights S/D & Kailua View Est. S/D	33	19.6400000	-155.9688889	651	10.0	640	1.44	No	No
1838	NA	Kona Heights S/D & Kailua View Est. S/D	34	19.6405556	-155.9686111	664	13.0	650	1.47	No	No
1839	NA	Kona Heights S/D & Kailua View Est. S/D	35	19.6402778	-155.9680556	683	11.0	671	1.49	No	No
1840	NA	Kona Heights S/D & Kailua View Est. S/D	36	19.6405556	-155.9677778	696	15.0	680	1.52	No	No
1841	NA	Kona Heights S/D & Kailua View Est. S/D	37	19.6405556	-155.9677778	703	15.0	687	1.52	No	No
1842	NA	Kona Heights S/D & Kailua View Est. S/D	38	19.6377778	-155.9672222	672	16.0	655	1.51	No	No
1843	NA	Kona Heights S/D & Kailua View Est. S/D	39	19.6391667	-155.9694444	632	15.0	616	1.39	No	No
1844	NA	Kona Heights S/D & Kailua View Est. S/D	40	19.6383333	-155.9688889	642	20.0	621	1.41	No	No
1845	NA	Kona Heights S/D & Kailua View Est. S/D	41	19.6369444	-155.9686111	636	21.0	614	1.40	No	No
1846	NA	Kona Heights S/D & Kailua View Est. S/D	42	19.6383333	-155.9697222	601	22.0	578	1.35	No	No
1847	NA	Kona Heights S/D & Kailua View Est. S/D	43	19.6375000	-155.9708333	552	21.0	530	1.27	No	No
1848	NA	Kona Heights S/D & Kailua View Est. S/D	44	19.6363889	-155.9705556	540	21.0	518	1.27	No	No
1849	NA	Kona Heights S/D & Kailua View Est. S/D	45	19.6383333	-155.9722222	511	16.0	494	1.20	Yes	No
1850	NA	Kona Heights S/D & Kailua View Est. S/D	46	19.6361111	-155.9722222	486	10.0	475	1.17	No	No
1851	NA	Kona Heights S/D & Kailua View Est. S/D	47	19.6377778	-155.9733333	485	18.0	466	1.12	No	No
1852	NA	Kona Heights S/D & Kailua View Est. S/D	48	19.6358333	-155.9738889	454	14.0	439	1.06	No	No
1853	NA	Kona Heights S/D & Kailua View Est. S/D	49	19.6377778	-155.9744444	448	19.0	428	1.05	No	No
1854	NA	Kona Heights S/D & Kailua View Est. S/D	50	19.6377778	-155.9752778	424	22.0	401	0.99	No	No
1855	NA	Kona Heights S/D & Kailua View Est. S/D	51	19.6358333	-155.9758333	420	15.0	404	0.93	No	No
1856	NA	Kona Heights S/D & Kailua View Est. S/D	52	19.6375000	-155.9763889	394	15.0	378	0.92	No	No
1857	NA	Kona Heights S/D & Kailua View Est. S/D	53	19.6355556	-155.9769444	382	15.0	366	0.86	Yes	No
1858	NA	Kona Heights S/D & Kailua View Est. S/D	54	19.6375000	-155.9775000	359	22.0	336	0.85	Yes	No
1859	NA	Kona Heights S/D & Kailua View Est. S/D	55	19.6355556	-155.9777778	357	18.0	338	0.80	Yes	No
1860	NA	Kona Heights S/D & Kailua View Est. S/D	56	19.6369444	-155.9791667	316	15.0	300	0.73	Yes	No
1862	NA	Ainaola Drive	A	19.6545472	-155.1160306	889	12.5	842	4.85	No	10 year
1861	NA	Ainaola Dr.-Hoaka Rd.	A	19.6630583	-155.1121944	700	22.5	644	4.22	No	No
1863	NA	Alokele S/D & Haihai Est. S/D	A	19.6774639	-155.0982083	509	20.7	457	2.90	Yes	No
1864	NA	Hawaiian Beaches Park	A	19.5499944	-154.9032222	185	19.0	149	1.18	No	No
1865	NA	Honomu Country Estates	A	19.8730639	-155.1115500	202	20.0	170	0.20	No	No
1866	NA	Hoomalu St. Drywell	A	19.6751750	-155.0943306	491	20.7	439	2.92	No	No
1867	NA	Industrial Lots (Pookela St. Area)	A	19.7034250	-155.0674306	56	20.0	16	0.84	Yes	No
1868	NA	Keaua Park	A	19.6232444	-155.0410639	342	30.5	280	4.05	No	No
1869	NA	Kennedy Acres & Haihai Meadows S/D	A	19.6720444	-155.1001500	561	15.8	513	3.28	No	No
1870	NA	Kilauea Street Drywell Sump	A	19.6958000	-155.0685583	88	20.3	44	1.30	No	No
1871	NA	Komohana Estates	A	19.6866694	-155.0917472	433	16.4	387	2.14	Yes	No
1598	NA	Kona Highlands Subdivision	A	19.7292083	-155.9864472	1,338	16.8	1,272	4.21	No	No
1872	NA	Kukui Estates Subdiv.	A	19.4989111	-154.9542639	640	24.0	583	5.83	No	No
1873	NA	Milo Street	A	19.6242833	-155.0377972	321	16.0	275	3.82	No	No
1874	NA	Pahoa Agricultural Park	A	19.5064083	-154.9533500	596	14.0	549	5.37	No	No
1875	NA	Pahoa Park (Along Kaohe Hmstd Rd.)	A	19.4926611	-154.9432194	669	17.0	619	5.84	No	No
1876	NA	Pahoa Playground (Kauhale St.)	A	19.4926361	-154.9473278	681	20.3	628	5.96	No	No
1877	NA	Pahoa Town	A	19.4945222	-154.9477278	643	15.0	595	5.86	No	No
1878	NA	Pahoa Woodland Subdiv.	A	19.4884694	-154.9329306	658	23.0	604	5.45	No	No
1879	NA	Waiakea High Country Subdiv.	A	19.6466000	-155.1222694	1,068	6.6	1,024	5.53	No	No
1880	NA	Waiakea Waena School Park	A	19.6836972	-155.0675583	143	19.0	97	2.11	No	No
2165	NA	Kaahuahu Makai Subdivision	A	20.2408450	-155.8301220	518	12.0	501	1.34	No	No
2181	NA	Kamuela Highlands Subdivision	A	20.0365140	-155.6247270	2,889	17.0	2,855	6.13	Yes	No
2172	NA	Kamuela View Estates	A	20.0292400	-155.7175740	2,190	19.0	2,158	6.84	No	No
2177	NA	Kawaihae Road	A	20.0223380	-155.6747870	2,644	21.0	2,609	8.53	Yes	No
2174	NA	Lalamilo Subdivision	A	20.0272890	-155.7024150	2,398	18.0	2,367	7.81	No	No
2178	NA	Mana Road Estates	A	20.0269740	-155.6373040	2,873	19.0	2,837	7.03	No	No
2168	NA	North Kohala Baseyard	A	20.2395540	-155.8338880	535	27.5	503	1.50	No	No
2162	NA	North Kohala Courthouse Lot	A	20.2294690	-155.7984210	489	31.5	450	1.29	No	No
1881	NA	Ainaola Dr.-Hoaka Rd.	B	19.6614417	-155.1125556	725	19.9	671	4.33	No	No
1882	NA	Ainaola Drive	B	19.6528472	-155.1180806	934	20.0	879	5.02	No	No
1883	NA	Alokele S/D & Haihai Est. S/D	B	19.6768722	-155.0981750	518	21.5	465	2.93	No	No

Inventory number	UIC permit number	Name	Well number	Latitude (degrees)	Longitude (degrees)	Ground elevation (feet)	Depth (feet)	Distance to water table (feet)	Distance to coast (miles)	High intensity development in drainage	In ACR
1884	NA	Industrial Lots (Pookela St. Area)	B	19.7033778	-155.0647639	56	20.0	17	0.93	Yes	No
1885	NA	Kennedy Acres & Haihai Meadows S/D	B	19.6712000	-155.1000722	564	17.5	514	3.33	No	No
1886	NA	Komohana Estates	B	19.6866000	-155.0922222	428	16.9	381	2.16	Yes	No
1632	NA	Kona Highlands Subdivision	B	19.7279361	-155.9891583	1,181	24.9	1,155	4.02	No	No
1887	NA	Milo Street	B	19.6247361	-155.0364056	296	12.0	254	3.73	No	No
1888	NA	Pahoa Agricultural Park	B	19.5075639	-154.9539528	580	16.6	531	5.34	No	No
1889	NA	Pahoa Park (Along Kaohe Hmstd Rd.)	B	19.4924639	-154.9432417	670	21.0	616	5.85	No	No
1890	NA	Pahoa Playground (Kauhale St.)	B	19.4915306	-154.9466694	668	22.0	613	6.01	No	No
1891	NA	Pahoa Town	B	19.4942444	-154.9473056	645	5.5	607	5.86	No	No
1892	NA	Pahoa Woodland Subdiv.	B	19.4858778	-154.9346333	677	15.0	630	5.37	No	No
1893	NA	Waiakea High Country Subdiv.	B	19.6462972	-155.1213944	1,032	21.0	973	5.51	No	No
2166	NA	Kaauhuu Makai Subdivision	B	20.2408930	-155.8311230	530	19.5	506	1.35	No	No
2179	NA	Kamuela Highlands Subdivision	B	20.0367180	-155.6238420	2,887	15.0	2,855	6.09	No	No
2173	NA	Kamuela View Estates	B	20.0280870	-155.7161480	2,198	19.0	2,166	6.92	No	No
2176	NA	Kawaihae Road	B	20.0221980	-155.6728740	2,635	17.0	2,605	8.47	No	No
2175	NA	Lalamilo Subdivision	B	20.0263240	-155.7005050	2,403	19.0	2,371	7.94	No	No
2167	NA	North Kohala Baseyard	B	20.2400650	-155.8341680	573	17.0	552	1.47	Yes	No
2164	NA	North Kohala Courthouse Lot	B	20.2295560	-155.7987970	489	29.5	453	1.29	No	No
1902	NA	Waiakea High Country Subdiv.	C	19.6488694	-155.1216167	1,025	21.2	968	5.37	No	10 year
1899	NA	Pahoa Agricultural Park	C	19.5107528	-154.9525472	568	14.0	522	5.11	No	2 year ¹
1894	NA	Ainaola Dr.-Hoaka Rd.	C	19.6611889	-155.1124083	727	21.5	672	4.34	No	No
1895	NA	Alokele S/D & Haihai Est. S/D	C	19.6772611	-155.0973500	509	17.3	460	2.88	No	No
1896	NA	Industrial Lots (Pookela St. Area)	C	19.7012306	-155.0661250	67	20.0	25	1.01	Yes	No
1897	NA	Kennedy Acres & Haihai Meadows S/D	C	19.6717889	-155.0984472	549	25.5	491	3.24	No	No
1898	NA	Komohana Estates	C	19.6866083	-155.0923389	428	13.5	384	2.16	Yes	No
1659	NA	Kona Highlands Subdivision	C	19.7279972	-155.9873500	1,265	24.6	1,191	4.11	Yes	No
1900	NA	Pahoa Park (Along Kaohe Hmstd Rd.)	C	19.4913861	-154.9427278	673	11.0	630	5.90	No	No
1901	NA	Pahoa Town	C	19.4939111	-154.9464306	652	29.5	590	5.86	No	No
2169	NA	Kaauhuu Makai Subdivision	C	20.2408760	-155.8321470	540	18.0	518	1.38	No	No
2180	NA	Kamuela Highlands Subdivision	C	20.0367400	-155.6237630	2,887	14.0	2,856	6.09	No	No
2163	NA	North Kohala Courthouse Lot	C	20.2295510	-155.7986970	489	23.5	458	1.29	No	No
1906	NA	Pahoa Agricultural Park	D	19.5128000	-154.9500389	547	15.0	501	4.89	No	2 year ¹
1903	NA	Alokele S/D & Haihai Est. S/D	D	19.6762917	-155.0973139	523	23.8	468	2.94	Yes	No
1904	NA	Kennedy Acres & Haihai Meadows S/D	D	19.6717972	-155.0983472	548	21.5	495	3.24	No	No
1905	NA	Komohana Estates	D	19.6844833	-155.0922000	448	18.5	400	2.28	No	No
1680	NA	Kona Highlands Subdivision	D	19.7278194	-155.9822417	1,557	17.2	1,452	4.36	No	No
1907	NA	Pahoa Park (Along Kaohe Hmstd Rd.)	D	19.4918333	-154.9431750	676	16.0	628	5.88	No	No
2170	NA	Kaauhuu Makai Subdivision	D	20.2398370	-155.8315340	548	19.3	525	1.43	No	No
2161	NA	North Kohala Courthouse Lot	D	20.2300350	-155.7986480	483	19.0	457	1.25	No	No
1910	NA	Pahoa Agricultural Park	E	19.5142083	-154.9482056	525	12.8	481	4.74	No	2 year ¹
1908	NA	Alokele S/D & Haihai Est. S/D	E	19.6750694	-155.0979093	530	22.8	476	3.03	No	No
1909	NA	Kennedy Acres & Haihai Meadows S/D	E	19.6711278	-155.0986611	550	17.5	500	3.29	No	No
1699	NA	Kona Highlands Subdivision	E	19.7265278	-155.9896639	1,162	4.4	1,156	3.93	No	No
2171	NA	Kaauhuu Makai Subdivision	E	20.2396570	-155.8319900	555	21.3	529	1.45	No	No
1913	NA	Pahoa Agricultural Park	F	19.5153528	-154.9467167	492	12.0	449	4.62	No	2 year ¹
1911	NA	Alokele S/D & Haihai Est. S/D	F	19.6750667	-155.0973806	529	23.0	475	3.01	Yes	No
1912	NA	Kennedy Acres & Haihai Meadows S/D	F	19.6711500	-155.0984111	550	21.0	497	3.28	No	No
1716	NA	Kona Highlands Subdivision	F	19.7265861	-155.9873028	1,272	23.3	1,199	4.05	No	No
1914	NA	Alokele S/D & Haihai Est. S/D	G	19.6750833	-155.0971500	529	23.0	475	3.00	Yes	No
1915	NA	Kennedy Acres & Haihai Meadows S/D	G	19.6699694	-155.0983167	561	18.9	510	3.35	Yes	No
1728	NA	Kona Highlands Subdivision+C2	G	19.7263611	-155.9843417	1,423	19.9	1,354	4.19	No	No
1916	NA	Pahoa Agricultural Park	G	19.5168639	-154.9450111	477	13.0	434	4.47	No	No
1917	NA	Alokele S/D & Haihai Est. S/D	H	19.6748694	-155.0979000	531	18.8	481	3.04	Yes	No
1918	NA	Pahoa Agricultural Park	H	19.5182306	-154.9433000	463	14.0	419	4.33	No	No
1919	NA	Alokele S/D & Haihai Est. S/D	I	19.6725972	-155.0969861	534	23.5	478	3.15	No	No

¹ Dry wells in the 2-year ACR of a given drinking water well will also be in the 10-year ACR for that drinking-water well.

This page intentionally left blank

Produced in the Western Region, Menlo Park, California
Manuscript approved for publication, November 17, 2009
Text edited by Peter H. Stauffer
Layout and design by Stephen L. Scott

